

THE
UNITED PLANTERS' ASSOCIATION
OF
SOUTHERN INDIA
(INCORPORATED)

THIRTY-SIXTH ANNUAL GENERAL MEETING

HELD AT

BANGALORE

ON

19th, 20th, 21st and 22nd August, 1929. - 35

WITH APPENDICES.

MADRAS:
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1929.

THE
United Planters' Association
OF
Southern India
(INCORPORATED)

LICENCE FROM THE GOVERNMENT OF MADRAS

Dated 22nd April, 1899

LICENCE

Whereas "The United Planters' Association of Southern India (Incorporated)" is an Association which is registrable under the Indian Companies Act, 1882, as a Limited Company, and whereas it has been proved to the satisfaction of the Governor in Council that it is formed for the purposes set forth in the Memorandum of Association, and that it is the intention of the Association to apply the profits and income of the Association to promote those purposes, and that payment of any dividend to its members is prohibited by the Fourth Article of the Memorandum of Association, His Excellency the Governor in Council is pleased to direct under the provisions of Section 26 of the said Act that "The United Planters' Association of Southern India (Incorporated)" shall be registered with limited liability, but without the addition of the word "limited" to its name.

good enough to consider it, and if necessary, discuss the matter with others in the Madras Presidency.

Mr. F. E. James.—Mr. Chairman, Mr. Langley has made a very interesting suggestion in a very able manner. I have felt, since I have been here, that inasmuch as I represent not only the Upasi but also various commercial interests throughout the Presidency, the burden which the Upasi has to bear is a little out of proportion to the services which I am able to render to it. I am perfectly aware that my appointment is in the nature of an experiment. I certainly do agree with Mr. Langley that in a short time, we shall have accumulated sufficient experience to be able to consult various interests, in the South, in regard to some such suggestion as Mr. Langley has made. I think Sir Fairless Barber, the other day, discussed with me the question of forming an entirely separate fund to which the Upasi would contribute along with other bodies for my support, the fund being in the hands of an independent body of trustees. If we decide that that ultimately is the best thing to do, then it is much better to go further and raise more than you are raising at present, not only simply for my own support and the office which I have to maintain, but also for the support of any plans, which may further our interests in South India along the lines of Mr. Langley's suggestion. It is early yet, for me at any rate, to make up my mind on the matter, but it is never too early to think over these things and I do hope that the District Associations will bear in mind what Mr. Langley has said. Possibly between now and February, when the General Committee meets again, we may make a few enquiries from those interested and discover whether the idea would commend itself to them as well. (Applause).

The Chairman.—Has any other delegate anything to say under the heading of the Political Department?

I move from the chair :

"That the Report be adopted."

The resolution was carried.

Copper Sulphate.

The Chairman.—Gentlemen, I should like to take one more item before we adjourn for lunch. I may inform you that the photograph will be taken at 12-30 p.m. Item No. 27,

"Copper Sulphate." There is a resolution on this subject from the Shevaroy's Planters' Association. It was only received in Bangalore, but, under Rule 6 of the Upasi Rules, the Executive Committee has given its consent to its being put before the meeting. The resolution runs as follows:—

- (i) That in view of the importance of encouraging the suppression of Agricultural Pests, this Association do move the Government to exempt from customs duty Copper Sulphate imported into the Madras Presidency for agricultural purposes.
- (ii) That in view of the damage done to agricultural produce by Pests, this Association do take steps to have Copper Sulphate brought within the same classification as manures for the purpose of Railway Freight.

We will take up the first resolution. You will, perhaps, remember that it is similar to the decision arrived at in 1926 by the Association when Government informed us that they could not take up the matter till they had received the report of the Royal Commission on Agriculture. Having received no further intimation at the time of the annual meeting last year and there being no reference to duty on copper sulphate in the report of the Royal Commission on Agriculture, it was decided to resume correspondence with Government and they have now informed us, in November last, that two Chemical Companies in India had petitioned the Government of India to extend protection to Copper Sulphate and that the matter had been referred to the Tariff Board, a report from whom was awaited by Government, before further considering admission of Copper Sulphate free of duty.

Mr. E. H. A. Travers Draper.—I thank the Executive Committee for allowing us to bring up this resolution and have to express our regret that we were not able to have a meeting of our Association earlier; so as to bring this matter up before. As a matter of fact it was only thought of at the last meeting. As regards the intention of Government to await a report of the Tariff Board before further considering whether it be made free of duty, I do not expect that this resolution is going to do much immediate good. But I should like to bring it forward now so that it will be before the Association, ready at any time, when steps may be neces-

sary. The resolution speaks for itself. Moreover, I am afraid in this case there is very little that can be said except that as regards the exemption of this article from customs duty, we have a precedent in the case of sulphur, which is at present admitted into the Presidency free of duty when imported for agricultural purposes. Copper Sulphate is used for the suppression of diseases, not only in coffee and rubber but in many other crops as well. We have been unable to obtain the figures of the quantity imported for other than agricultural purposes, but we understand that that quantity is negligible. The average import for the year 1922-23 was 246 cwts. and for 1928-29 8,633 cwts. This must show you, gentlemen, how increasingly important Copper Sulphate is in the suppression of pests. It is not that we, or any other agriculturists, are going to make a profit out of Copper Sulphate, but prices are going up and it is a product the price of which varies, I may say, from hour to hour. The tendency is for it to rise and spraying is very costly. The Government are, I take it, in favour of anything that can help the agriculturists and I do not think it is asking them too much to consider this matter.

This resolution has been kindly seconded by Mr. de Weck of the Mysore Planters' Association.

The Secretary.—Mr. Chairman, the resolution which Mr. Travers Drapes has put forward reads :

"That in view of the importance of encouraging the suppression of Agricultural Pests, this Association do move the Government to exempt from customs duty Copper Sulphate imported into the Madras Presidency for Agricultural purposes."

As you have already mentioned, this Association did move the Government as long ago as 1926 and as you have said we have continued agitating for it. Would the Shevaroy's Planters' Association agree to alter their resolution slightly? Do not accept this if you prefer to stick to your own wording. But if you will re-word your resolution somewhat as follows, it will better represent the present position.

"That in view of the importance of encouraging the suppression of Agricultural Pests, this Association do re-iterate its request that Copper Sulphate imported into the Madras Presidency for Agricultural purposes be exempted from customs duty."

Having already moved the Government, we can hardly write that this resolution was moved only yesterday, when they have had it under consideration for three years.

The Chairman.—Would you be prepared to move your resolution in those words Mr. Travers Drapes ?

Mr. E. H. A. Travers Drapes.—Yes Sir.

The Chairman.—Has any other delegate got anything to say on this matter ?

Mr. A. K. Weld-Downing.—I would suggest that we bring this matter to the notice of the Directors of Agriculture, Madras, Mysore and Travancore. I feel that the Director of Agriculture, Madras, at any rate, will take interest in this subject and his action might be very useful to us.

IN COMMITTEE.

The Secretary.—With reference to what Mr. Weld-Downing has said, I would remind you that this business started with the assistance of the Director of Agriculture, Madras. Our original proposition to the Government of Madras was that if they could not see their way to exempt all Copper Sulphate required for purposes of Agriculture, they would, at least, grant exemption from duty on all Copper Sulphate which was consigned to the Upasi if it gave a guarantee that such Copper Sulphate would not be used for any other purpose than Agriculture. The Director of Agriculture, Madras, has already supported us. I had not thought of circularising the Director of Agriculture, Mysore, but I think it to be quite a good suggestion.

Mr. R. O. Oliver.—Why not take what we can get—exempting Copper Sulphate from duty consigned for the Upasi. I think that is quite good enough.

The Secretary.—We asked them if they could not see their way to do it, but they never consented to it.

OPEN MEETING.

The Chairman.—I shall now put the resolution of the Shevaroy's Planters' Association to the vote:—

"That in view of the importance of encouraging the suppression of Agricultural Pests, this Association

do re-iterate its request that Copper Sulphate imported into the Madras Presidency for Agricultural purposes be exempted from Customs duty."

Those who are for it will kindly hold up their hands ?
Those against ?

The resolution is carried.

The Chairman.—In view of what has already been said, I shall instruct the Secretary to ask Dr. Coleman for his support in the matter.

Mr. Travers Drapes, will you kindly move your second resolution ?

Mr. E. H. A. Travers Drapes.—I move the following resolution:—

"That in view of the damage done to Agricultural produce by Pests, this Association do take steps to have Copper Sulphate brought within the same classification as manures for the purpose of Railway Freight."

I do not, gentlemen, anticipate that the Railway Companies will have any objection to a resolution of this sort, because naturally if pests are kept down, produce will increase and that means that the quantity of goods which they have to carry will also increase. It is, therefore, to their interest to help in the suppression of the pests. I feel that the railways will not refuse our request. I might mention that the present rate of freight on Copper Sulphate from Madras to Salem is about Rs. 20 a ton and on manures it is about Rs. 10 a ton. As Copper Sulphate is used solely for Agricultural purposes, in the same manner in which manure is used, I think it is in the interests of the Railway Administration to carry at the same rates as manure.

Mr. M. A. de Weck.—I second it.

The Chairman.—Mr. Travers Drapes, might I ask you whether there is sufficient quantity of Copper Sulphate going to the Shevaroyis to justify the railway reducing the freight to manure rates ?

Mr. E. H. A. Travers Drapes.—The quantity that was carried to the Shevaroyis, the year before last, was 10 tons.

and the quantity this year was 20 tons and it is likely to go on increasing, but we might also look at it the other way about, namely, that if the quantity is small the railway stands to lose less. (Laughter).

The Secretary.—Mr. Chairman, I speak open to correction by Mr. Langley or by Sir Fairless Barber. I think the special rates for manure are all for wagon loads. Unless you can move your Copper Sulphate in wagons, this resolution, if accepted by the railways, will make no practical difference.

Mr. E. H. A. Travers Draper.—The rate is, I take it, *pro rata*. If you do not get a wagon load, you have to pay a little more. In this particular case the quantity carried by the railway was 20 tons this year. We got it through our Association and it came in one wagon load and that is what we shall always do in future.

The Chairman.—Has any other delegate anything to say on this matter? The resolution which is before the meeting has been read out. Will those in favour of it kindly hold up their hands? Those against?

The resolution is carried.

The Chairman.—We will now adjourn for lunch until 2-30 p.m.

Third Day, Wednesday, 21st August, 1929.

(AFTERNOON SESSION).

The meeting re-assembled at 2-30 p.m., after the luncheon interval.

The Planters' Chronicle.

The Chairman.—The first item on the agenda this afternoon is No. 12, The Planters' Chronicle. The Central Travancore Planters' Association has a resolution on this subject and, I think, most of us are agreed that something should be done to change the present condition of the Chronicle. I should like to have the views of delegates. In connection with this I may state that I have Mr. James' permission to say that in any change that is proposed in the Chronicle, he would do his best for the paper. He would write articles and generally assist in the editing of the Planters' Chronicle. (Applause).

Mr. A. R. St. George.—Mr. Chairman and Gentlemen, I have been instructed by my Association to move the following resolution at this meeting:—

“That the question of the improvement of the Planters' Chronicle be given full consideration.”

My Association is in harmony with the remarks contained in the Upasi Planters' Chronicle, page 477, and feels that the Chronicle can and should be improved. The objection as to a change in the size of the journal does not appear to be a serious one, as instead of altering its form, the number of pages could be increased quite easily. With regard to improvements, I would suggest that the reproduction of articles on the planting districts, which sometimes appear and which are most useful, should be made a regular feature and that original articles written by recognized authorities and by others whose practical experience and observations have given interesting results, be also sought for. Articles on shikar and reports of district meetings should also be obtained and published in the journal. There are also other suggestions which might be adopted. My Association feels that there is a great deal to be done, but is definitely against anything which would tend to cause loss of revenue.

Mr. A. P. D. Lodge.—Mr. Chairman, may I second this resolution. I should like to say one or two things. The Chronicle makes a lot of profit through advertisement space each year. I think some of that profit might be sacrificed to the South Indian Planters' Benevolent Fund. In an attempt to improve the Chronicle, it should be possible to include in this journal articles of interest to planters. Incidentally this will also be of help to advertisers. At present we have far too many quotations from other agricultural journals. Short quotations may be permitted but not long ones. Trivialities like "Mr. so and so called upon the Secretary of the Upasi this morning" should not be included. (Laughter). News regarding some obscure person, about whom no one has heard before, is given. This should be excluded.

The Chairman.—Mr. Lodge, you are correct in saying that the profits of the Chronicle do not go to the Benevolent Fund. At the same time if the size of the Chronicle was enlarged—say to the size of "Punch"—I think it would cost double or perhaps not quite so much, but advertisements would very soon cover any extra expenditure.

Mr. F. E. James.—Mr. Chairman, the resolution as it stands does not help us very much. It simply says that the question of the improvement of the Planters' Chronicle should be given full consideration. You cannot give full consideration unless you propose some fairly constructive ideas. I quite agree with the last speaker that we should not put in trivial matters like "By the kind courtesy of the Secretary Mrs. Blank gave birth to twins." (Laughter). I once saw a paragraph in an old Planters' Chronicle "To Mr. and Mrs. so and so a bony baby" presumably meaning a bonnie baby. (Laughter).

Then the question comes as to contributions. It is most frightfully difficult, I know from experience, to get contributions from the members of the Associations or even from other people. What would the meeting think of paying for contributions? That is one suggestion which has been made to me in private during the course of one or two discussions. Another suggestion is that there should be a photograph of the new Chairman as soon as he is elected with some part of his career, at least that part of his career which would bear publicity. (Laughter). There might also be photographs of the Chairmen of the District Associations.

Then as regards the size of the paper, I know from the little journalistic experience I have had, that on the present size of the paper it is very difficult to set out articles well. The kind of paper that I venture to suggest would be a paper much more the size of "Punch." I have seen some of the old "Chronicles". It is much easier to set out articles in an attractive style on that kind of paper than on our present paper. Then there is the question of taking important extracts from the other periodicals. For example, I think, we should get a good deal of very useful information on planting matters from other countries such as Java, etc., and when you put in extracts from those papers, they should be adapted to be more easily understood. For example, foreign Currencies could be translated into Indian Currencies, prices, percentages and so forth. Then another suggestion which has been made is that all reports of District Association Meetings should be published in one particular place under a large heading "District Association Meetings" rather after the style of the news from Branches in the European Association Monthly Review. These are some suggestions which I venture to throw out in the hope that they will attract other suggestions from the members of this meeting. (Applause).

• *Mr. R. O. Oliver.*—I agree with what Mr. James has said. The Planters' Chronicle has an enormous circulation. We can well afford to spend more money on this paper and we can look forward to having a much better paper. The next thing is to obtain increased advertisements. I should like to see as many advertisements as possible.

Mr. E. L. Poyser.—There is one thing which I should like to see in the Chronicle. I do not quite know whose fault it is, but when one gets the Chronicle, one so often finds the report of a District Association Meeting held a month or 5 weeks ago or even more than that. I know that the Honorary Secretaries of the Associations are very often hard worked men, but I think that an attempt should be made to get out these reports without much delay. A very great deal of interest has gone from the reports of meetings when they are published five or six weeks afterwards. I think a special effort must be made to get these reports into the Chronicle as soon as possible because after some time we lose the interest that we at first had in the subject.

The Secretary.—Mr. Chairman, I should like to say a word with regard to this matter. As you know I have been rather intimately connected with the Chronicle for the last 10 years. During that time I have never known the report of a District Association held over for want of space. I may be wrong, but as a rule we have enlarged the Chronicle, rather than hold over the report of a District Association, if it is received not later than a Thursday. As you must have noticed, we never stick to a fixed number of pages. The other day, the report of a meeting reached us on Friday. We go to Press on Thursday, and we cannot after that alter the whole paper. But there never has been any delay in the office of the Planters' Chronicle in respect to District Association proceedings.

The Chairman.—If no one has anything further to say, I should like to move an amendment from the Chair:—

"That the whole question of the Planters' Chronicle be referred to the Executive Committee with the request that they take such steps as may be necessary to effect a radical improvement in the publication."

Mr. A. R. St. George.—I think my Association would be quite pleased to accept that amendment.

The Chairman.—The following resolution and the amendment are before the meeting:—

"That the question of the improvement of the Planters' Chronicle be given full consideration."

"That the whole question of the Planters' Chronicle be referred to the Executive Committee with the request that they take such steps as may be necessary to effect a radical improvement in the publication."

If no other delegate wishes to speak, we will now vote on the amendment. Will those in favour hold up their hands? Those against?

The amendment is carried.

The Chairman.—Before proceeding to the next item, gentlemen, I should like to point out that we cannot expect any change in the Chronicle to take place before the first of

January next, so that we may complete the present volume of the existing edition. Also you have to consider existing contracts for advertisements. I hope the delegates will bear that in mind. The Executive Committee will go into the matter and will try to take action as soon as possible.

Mr. A. P. D. Lodge.—May I make one suggestion? I think we should ask the Secretaries of the District Associations to tack this on to their other duties, namely, to see that District Association news of interest is sent to the Chronicle as soon as possible. The Secretaries should be asked to do their best to get news of interest and to send the same for publication in the Chronicle.

The Chairman.—I expect the Executive Committee will take that into consideration.

The Empire Marketing Board.

The Chairman.—Item No. 26—The Empire Marketing Board. I think we should consider this matter before we take into consideration the question of coffee propaganda. Before commencing a discussion on the subject, I should like to mention that in June last, the Secretary drew the attention of the Executive Committee to a notice issued by the Empire Marketing Board that they intended advertising by means of posters and advertisements the merits of the coffee produced in East Africa as an Empire product. As these advertisements completely ignored East Indian Coffee, we approached the Indian Trade Commissioner in London. I will ask the Secretary to read the reply which I think is satisfactory. It has been brought to my notice that a miniature of a poster given as the frontispiece of the Report of the Empire Marketing Board issued last month while urging the public to buy Indian rice, tea, curry powder, etc., again completely ignores coffee.

The Secretary.—The first answer, received from the Acting Indian Trade Commissioner, was as follows:—

Reference No. 60295.

18th July, 1929.

DEAR SIR,

I write at once to acknowledge the receipt of your letter, Number 2447, dated the 27th June, 1929, on the subject of the Empire Marketing Board's advertisement of East African Coffee. I have already addressed the Board, and will not fail to represent to them

your point of view. I can assure you, from personal knowledge of the work of the Board, that there is no desire whatever to favour one part of the Empire above another. In fact, the Board is only too anxious to help India in every way possible. Next month, for example, special publicity is to be given, entirely at the Board's expense, to Indian rice, and it is likely that at a later date publicity will be given to Indian tea. I will make it my business to enquire whether something cannot be done for East Indian Coffee as well.

I trust that I shall be able to write to you again shortly, after I have discussed the matter with the Board.

Yours faithfully,

(Signed) A. R. GREEN, ..

Acting Indian Trade Commissioner.

This was followed by a letter dated 30th July reading as follows:—

DEAR SIR,

In continuation of my letter No. 60295 dated 18th July, I write to say that the Empire Marketing Board informs me that they do not undertake continuing campaigns for any individual commodities, but make their main aim in the field of publicity the creation of a background of goodwill towards Empire buying in general against which individual Empire Governments or trading interests can throw into relief the claims of their particular products.

In the course of their campaign, however, the Board from time to time draw special attention to individual products, by way of giving concrete illustration to their general theme of Empire buying. The advertisement of East African Coffee to which you refer is a case of the kind. The advertisement forms part of a series under the heading of "Empire Shopping" which the Board are issuing this year.

Each advertisement in the series draws attention to one product from a different Empire country and each product to be thus illustrated has been selected in consultation with the official Trade representative in London of the Empire Government concerned. In the case of India the product selected was rice and the advertisement in the series dealing with Indian rice will appear shortly.

In regard to Indian coffee, I may inform you that attention has been drawn to this commodity from time to time in various ways in the course of the Board's campaign, in newspapers, in leaflets, etc. For example, the Board have recently been displaying in their pavilion at the North East Coast Exhibition, Newcastle, a special shop window dressed with Empire products. On two occasions the display in this window, for a fortnight at a time, has been devoted to coffee, and Indian coffee has occupied a prominent position. I should also refer to the free space which the Board places at my disposal at the leading exhibitions throughout the country for the display of Indian products, among which Coffee figures prominently. I have recently returned from such an exhibition at Plymouth and can personally testify to the great publicity value of the facilities accorded to my office by the Board.

In conclusion I wish to assure you that I will not only endeavour to keep the claims of Indian coffee before the Board, but will also consider whether my own office cannot exhibit Indian coffee more strikingly in the exhibitions in which we take part. Possibly I shall at a later date invite your suggestions and co-operation.

Yours faithfully,

(Signed) A. R. GREEN,

Trade Commissioner.

The Chairman.—That is all the information we have got on the subject. Does any delegate wish to speak?

Mr. W. K. M. Langley.—Mr. Chairman, I am afraid that you and the Secretary have managed to mention all my thunder on this particular subject, but still I have certain things to say about it. What Mr. Waddington has just read out strikes me as making the best of an extremely bad case. I myself have been for some time studying the various excellent pamphlets and advertisements which are issued by the Empire Marketing Board, and one thing, everybody can be agreed upon, is the excellent work that they do with regard to advertisements. I have never seen better advertisement than the advertising that is being done at the present moment by the Empire Marketing Board. Our only complaint is that their ideas do not entirely consort with our ideas. Generally speaking, up to within the last month or so, possibly as the result of these representations by the Upasi, there was extraordinary absence of any reference to any produce from India by the Empire Marketing Board. This was the case even with regard to the King's Christmas pudding, which did not contain a single ingredient which comes from the Indian Empire. In the same way the Empire Marketing Board puts up public entertainments of sorts, at which all the various items on the menu are described as from the various parts of the Empire, but in the whole of that fare, which is provided on these occasions, I defy you to find any reference to India whatsoever, with the exception, that in the end they generally hand round the Trichinopoly cheroot, which is not exactly the thing to make India popular. (Laughter). Finally a most beautiful pamphlet came out. We have one in the Chamber of Commerce, describing the fruits of the Empire in due season. I thought we would find some reference there and looked for the mango and the

origin is given there as South Africa. (Laughter). It may or may not have originated from South Africa, but the most important thing which the Chairman has explained and which has been the burden of this correspondence, is the matter of Coffee. Then there was a display of advertisements during the last three or four months "produce of Kenya most beautiful coffee." Apparently throughout the length and breadth of the British territories, people are encouraged in the impression that the highest class of coffee in the British Empire is grown in East Africa. Anybody who knows anything about the coffee trade, and more especially the Home trade, will appreciate the serious effect that this must have on one of the most important industries which is represented at this meeting. The reason for this is quite plain: the President of the Empire Marketing Board is the Secretary of State for the Colonies. The Vice-President is the Under Secretary of State for the Colonies. The British Dominions and the Colonies are well represented by very prominent men on that Board. A single representative for the whole of the Empire of India, which buys more manufactured goods from the British Isles than any other part of the Empire, is the Indian Trade Commissioner. However able he may be, he is in the minority. By virtue of his position he does not carry sufficient weight. The least it seems to me that should be done is that India should be represented either by the High Commissioner or preferably by the Under Secretary of States for India and in that way I feel convinced that we would pull our weight much more with the Empire Marketing Board. (Applause).

Mr. F. E. James.—Mr. Chairman, at the same time that Mr. Waddington wrote to London, I wrote to Mr. Lindsay, who is the permanent Trade Commissioner, but who is on deputation to this country and is at present acting—I think until December—in the Commerce and Industry Department of the Government of India, and he makes a very clear statement with regard to this matter. He says that there are two ways in which the Empire Marketing Board helps the sale of the Empire goods—one is by helping in Research and the other is by publicity. In regard to publicity he says that the Empire Marketing Board tries to bring about as many changes as possible in their selection of the Empire products which are advertised through posters. Some posters illustrated similar products from the different parts of the

Empire, while other posters concentrated on one part of the Empire. "If you are thinking of publicity then your best plan would be to join in a recommendation to the Board that an Empire coffee poster would be a good thing. That would cost you nothing." He then goes on to say that if you want posters for a particular country, then they have got to be paid for, or, at any rate, contributed to by the producers of that country. In other words if you want publicity for Indian coffee on a definitely organized scheme, the Indian coffee producers will have to be prepared, to some extent, to put their hands into their pockets.

Sir Fairless Barber.—In regard to the Empire Marketing Board, I mentioned a small matter yesterday which seems to indicate that there is something wrong which ought to be put right.

The Empire Marketing Board have been approached by the I.T.A. for assistance in research work which I believe is to be granted.

I heard of the matter over three months ago, but I believe I am right in saying that the South Indian Association, which we were instrumental in starting a few years back, have sent us no advices on the matter, though there is indication that they had received the correspondence on the matter.

The Chairman.—If no one has anything further to say on this matter, I propose to revert to item No. 32.

Coffee Propaganda.

The Chairman.—The Coorg Planters' Association have given notice of the following resolution:—

"That this Association do consult the various coffee interests in South India with a view to preparing a scheme of propaganda for submission to the Government of India and the Empire Marketing Board."

Maj. J. S. H. Morgan.—After hearing Mr. James, Mr. Langley and our Secretary, I think very little remains to be said on this subject, except perhaps that in England if you go round and try to find Indian coffee, it is impossible to do so. The first thing that is put before you is the Kenya

coffee. If the resolution is passed, it will do a lot of good to the coffee interest. At the same time if you look at the resolution, it ends with the words: "for submission to the Government of India and the Empire Marketing Board." If Mr. James agrees it could go direct from the Association.

The Chairman.—I think you can explain this better than I can Mr. James, but is it not a fact that any request should be made through the Government of the country?

Mr. F. E. James.—It would have to go to the Government of India if it is a definite scheme for propaganda that you are putting up. If you are simply asking them to advertise your wares, anybody can do that. But if you are going to work out a scheme, then it is better to go through the Government of India and by the Government of India backing it, it stands a better chance. If you are going to do it, it had better be done within the next six months. We have now officiating in the Government of India the permanent Indian Trade Commissioner, Mr. Lindsay. The man who is in London is the acting man. Mr. Lindsay would help you, I am sure, in drafting a scheme. If the coffee planters are serious about it, they must do it within the next six months.

Mr. E. L. Poyser.—I second it.

Mr. G. Q. Archard.—Mr. Chairman, I can say from practical experience that the brokers and blenders at Home always went in for the Mysore coffee on account of its special flavour.

The Chairman.—The following resolution is before the meeting:—

"That this Association do consult the various coffee interests in South India with a view to preparing a scheme of propaganda for submission to the Government of India and the Empire Marketing Board."

Will those in favour kindly hold up their hands? Those against?

The resolution is carried.

Coastal Reservation Bill.

The Chairman.—There is an extra item which is not on

the agenda. I will read it to you and will ask your permission to allow the mover and the seconder of the resolution to bring it up:—

"That this Association is strongly opposed to the provisions of the Coastal Reservation Bill both on economic grounds and as introducing discrimination of a racial character."

Mr. W. K. M. Langley.—Mr. Chairman and Gentlemen, I think everybody is aware of the provisions of this wretched Bill, which is best known as the Coastal Reservation Bill, and which is coming up, I think, for final discussion in the September Session of the Imperial Assembly in Simla. It is a Bill which, I think, has really a genuine and good motive behind it, curiously enough. I think everybody who is brought up with a knowledge of English history, as people in this country are, and a knowledge of the history of any successful country and any country which is developing a national spirit, naturally feels that he must have interest on the seas in the shape of steamers, or, at any rate, a mercantile marine. I think that is the genuine feeling with regard to this extraordinary Bill. With that feeling nobody, I am sure, in this room will have the slightest quarrel. It is a most legitimate desire, but, I think, it must seem to any sane and rational person that this Bill is hardly the way to establish realization of that particular desire. Obviously the first thing is to train your seamen and the next thing is to provide them with ships. Well, this Bill apparently seeks to provide them with a mercantile marine and a complete organisation, which they have not paid for, and for which they have no intention to pay. It is a Bill which should be attacked equally on economical and on political grounds. In fact, anybody who is not so absolutely permeated with the most unfortunate racial bias, would oppose a Bill of this nature. The Bill is of such an astounding nature that I would welcome re-assurance regarding the political education of this country, that I still think that the saner elements, even amongst those holding strong national views, may yet assert themselves and that the Bill will possibly be thrown out. If so, it will be a test and a sign of the political sobriety of the politicians of this country. Well, I think, you are all aware of the Bill. The essential feature of it is that within a period of five years, the entire coastal traffic round the shores of this country, excluding Burma, would have to be catered

for solely by Indian controlled Steamers and Shipping Companies—the Indian control is of a very drastic nature. It is 75 per cent. Well, on economical grounds this can obviously be attacked. It would create a special monopoly in a place where we have at present "free competition" and not only a monopoly but a sort of "Government control monopoly" and anybody who has had any experience of Government control in connexion with trade and commerce, and particularly in connexion with shipping matters, will appreciate what a serious effect that must have on other bigger interests who require to make use of the Services supplied by the Shipping Companies. I believe there is an idea among laymen even now that there is a sort of a monopoly on the Coast already—that it is the British India Steam Navigation Company. Yet nothing is less true than that. I speak with some feeling on the subject, myself, because at one port, gentlemen, my firm happens to be the Agents of the British India Company. I know at that port we practically have no business whatsoever because the whole of the trade is captured by another line of steamers. I may say that that place is Mangalore and the Bombay Navigation Company—which is an Indian owned Company in the best sense of the word—is there. It is run in Bombay by a Board which is a mixture of Englishmen and Indians, and there is a large amount of Indian Capital in it. There is no sort of control and there is no sort of racial discrimination about it. But apart from that particular Company, there is a large English Company with eighteen vessels, there is a Scindia Steam Navigation Company with eight vessels, the Bombay Company with ten Cargo vessels and ten Passenger vessels, the Bombay Persia Company with seven vessels and there are small concerns having four vessels. All these concerns have been established quite a long time and they are carrying on their trade. They are not doing well, but then nobody is doing well at the present moment. I should think that if the Accounts were published, it would be seen that the British India Company—this is on a run from Calcutta to Bombay and back—do not pay expenses and they are probably paying dividends from their Reserved investments. I am not sure of that, but, I think, that is probably the case. Apart from that, there seems to be an idea that the British India Company, and possibly one or two other Lines have a sort of a Triangle of what is called the Coastal Trade, where they pick up small parcels of Cargo from port to port, calling in at each port, but as a

matter of fact what really helps the parcels' traffic is the smallest port and it is the important coastal traffic which will be affected by this Bill.

Speaking from memory, when this Bill came up in Simla or Delhi, Sir James Simpson made the statement, and I do not think it was contested, that the total coastal trade of this country is something like $3\frac{1}{2}$ million tons, out of which not less than $2\frac{1}{2}$ million tons, by far the largest portion of it, consist of commodities, food-stuffs in the shape of rice, and all articles of prime interest to the people of this country. Well, you can see for yourself. Now this particular trade, that is $2\frac{1}{2}$ million tons, has been secured by the British India and other Lines in the midst of keen competition. Take the rice trade and the coal trade—both those trades are open to any Steamship line. Any steamer can compete for that trade and the British India get it. It does not get all. The Scindia gets something of it. It is that trade which they managed to secure by good management that is now to be, by this Bill, simply taken away from them. There may be various reasons. I think the political name is discrimination, but personally I call it robbery, and robbery is none the less robbery, where it is aided by the more insidious means of the ballot box. Well, apart from the economy question there is a political question. It seems to me that this Bill, if passed, will definitely show itself as the first manifestation of a definite movement.

Sir James Simpson, the last time the Bill was discussed in Delhi, put the rhetorical question to the members present. He said the parties behind this Bill have to-day cast their evil eyes on shipping. To-morrow others may cast their eyes on tea, coffee and anything else you like. He received the reply: "Why not?" When he asked the rhetorical question where are you going to stop? The reply was frankly given, "Do not stop."

Well, gentlemen, it seems to me that, quite apart from the economic question, you will from time to time find things being worked up against you, and food-stuffs for your coolies costing you more. You will have an inefficient service of steamers and you yourselves may be faced with what the Shipping Companies of this country are now faced with in this Bill. That is why I feel that if you have sufficient self-

interest—let alone ordinary questions of right or wrong—you will not hesitate in passing this resolution which I have proposed. (Applause).

Sir Fairless Barber.—I second the resolution.

The Chairman.—Has any delegate anything to say on this subject? If not, I shall put the resolution to the meeting:

"That this Association is strongly opposed to the provisions of the Coastal Reservation Bill both on economic grounds and as introducing discrimination of a racial character."

Will those in favour kindly hold up their hands? Those against?

The resolution is carried.

Provident Funds.

The Chairman.—I will now take up Item No. 9—Provident Funds. All of you know that we have two separate Provident Funds—one for the European employees and the other for the Indian employees of the Association. The amount standing to the credit of the European Employees Fund is Rs. 86,000 odd and the amount to the credit of the Indian Employees Fund is Rs. 14,800 odd. You will have noticed a note in the Planters' Chronicle regarding a proposal by Government to extend to the provident funds of firms and associations the same concession as is now enjoyed by Government provident funds in respect to Income Tax. The question is being dealt with, ably and completely, by the Associated Chambers of Commerce of India and Ceylon and therefore we may with confidence leave the matter to that Association.

Has any delegate any question to ask under this heading?

Sports Club.

The Chairman.—We will now proceed to Item No. 10—Sports Club. All delegates have had copies of the Accounts up to the 31st March which shows a satisfactory position. Bringing the account up to the 31st July, there is a credit balance of about Rs. 3,400. I move from the Chair:

"That the amendments of the U. P. A. S. I. Sports Club Rules recommended by the General Committee be confirmed."

Rule 1. That after the word "person" in Rule 1 (c) the word "directly" shall be inserted.

That after the words "any European" in Rule 1 (d) the words "resident in a planting district" be inserted.

Rule 2. That in place of the first clause of Rule 2 the following shall be substituted:—

Members elected under clause (b) and (d) of Rule 1 shall pay an annual subscription of Rs. 10.

Has any delegate anything further to say on the subject of Sports Club Rules? No one.

The amendments are confirmed.

Buying Agency.

The Chairman.—I now proceed to Item No. 11—Buying Agency. You will have read in the Executive Committee's Report that the Buying Agency continues to find support and that a large number of members have joined it. The number of members has increased to 429.

I beg to move from the chair :

"That the following addition to the U.P.A.S.I. Buying Agency Rule No. IV recommended by the General Committee on March 4 last be confirmed :

"Any member whose subscription is one year in arrears shall cease to be a member."

Carried.

Harbours.

The Chairman.—We will now pass on to Item No. 16—Harbours. With regard to Harbours, we have received no notice of any resolution regarding this subject, but in our Address to His Excellency the Viceroy we have emphasized the necessity for converting the Shoranur railway into a broad gauge line. I further understand that the intention is that from Trichur the line should be of double gauge, both metre gauge and broad gauge, in order to make direct communication from the Cochin Harbour with the Pollachi-Palghat-Trichur railway.

Mr. Grant, have you any information to give us regarding the Cochin Harbour?

IN COMMITTEE.

Mr. W. Grant.—I would like to speak in committee. I should like to give you a brief outline of the present position in Cochin.

During the past official year which ended in March this year, the main channel has been deepened and widened, so that we have a deep water communication with the open sea. This channel is sufficient to admit of the usual coasting and foreign going cargo ships, which trade on our coast. It was hoped that, before the burst of this year's monsoon, the mooring buoys would be placed in position, but unfortunately, this matter has been delayed, and it is only to-day I have received information from Cochin that the first mooring buoy has been placed in position. I understand that the second buoy is likely to be put in position in about a week or so. It is further hoped that within three or four months we will have another 4 or 5 buoys in position. That would give us a total of say six mooring buoys which, although insufficient to meet all the requirements would normally suffice to moor a few steamers.

At this moment nothing is definitely known about the further developments of the mooring area, but I do not think there is anything contemplated to be done on the lines suggested by certain statements. The third stage is understood to be completed, but that stage has not yet been reached when steamers can enter and moor in the harbour. Reference has been made to the fourth stage including wharves and sheds. It is believed that Government will shortly convene a conference of all interested persons to discuss the future programme. At present there is no pressing need for extensive wharves and sheds. For the benefit of those not familiar with Cochin, it may be explained that the absence of these extensive facilities need not necessarily handicap the Harbour. When we have our steamers loaded and discharged in still water in the inner Harbour, the conditions will be precisely similar to those prevailing in Colombo. No official information is obtainable. It is contemplated that within the next three or four months the normal procedure will be in a majority of cases for steamers to load in the inner Harbour.

Railways.

The Chairman.—We will now pass on to Item No. 17—Railways. As in the case of Harbours so in the case of Railways no resolution has been tabled. Colonel Brock, as our representative on the Advisory Committee of the South Indian Railway, have you anything of interest to tell the meeting.

Mr. A. F. Campbell.—What has become of the proposal to convert the Shoranur-Ernakulam line into broad gauge? The information which is available in Cochin is to the effect that the Cochin Durbar has expressed the wish to proceed as soon as possible with the conversion and that they have applied to the Government of India for a loan to carry out the work.

Postal.

The Chairman.—Item No. 19—Postal. We thought a resolution might be tabled under this heading, but we have received no notice of any. Has any delegate anything to say on the subject?

Mr. W. K. M. Langley.—The resolution that I would like to propose is as follows:—

“This Association is of opinion that the extension of the Air Mail Service from Karachi to Ceylon via Bombay, and if possible, to West Coast should be carried out as soon as possible.”

This is a question about which a lot has been published in the papers and has been attracting the attention of certain Chambers of Commerce and in our Chamber we have had some correspondence on the subject with the Bombay Chamber as to whether the Air Service could not be extended to Bombay, and if possible, down to Ceylon. But it seems to me that with all our excellent water-ways the West Coast has a most excellent route for aeroplanes or sea-planes from Bombay down to Ceylon and the West Coast. That would be an excellent service for Southern India.

The Chairman.—Do you not consider Mr. Langley that Madras has a claim?

Mr. W. K. M. Langley.—No; I do not.

Mr. A. F. Campbell.—I second the resolution.

Mr. F. E. James.—There is no District Association in Madras, and so I suppose that Mr. Waddington and I represent Madras. I would like to put in a word for it. The resolution, if I may suggest, would probably command greater weight if it called for an extension of the Air Mail Service to Southern India generally. I make that suggestion to Mr. Langley and then he would not be hurting the feelings of the people of Madras.

Mr. W. K. M. Langley.—All that I say is that I shall not be hurt if there is an amendment on the subject, but I stand by my resolution.

The Chairman.—Has any delegate anything to say on the subject? The following resolution is before you:—

"This Association is of opinion that the extension of the Air Mail Service from Karachi to Ceylon via Bombay, and if possible, to West Coast should be carried out as soon as possible."

Will those in favour kindly hold up their hands? Those against?

The resolution is carried.

Mr. A. P. D. Lodge.—I move the following resolution:

"That the U. P. A. S. I. take up with the Postal Authorities the matter of improving the delivery of Air Mails."

The present delivery of the Air Mails is very irregular and should be improved. The delivery is now made sometimes on Friday, sometimes on Saturday and sometimes on Sunday.

Mr. I. N. James.—I second the resolution.

The Chairman.—Will those in favour of the resolution kindly hold up their hands? Those against?

The resolution is carried.

The Secretary.—Will Mr. Lodge and other gentlemen, interested in this matter, supply me with all the information they can as regards the delay in delivery. It is very difficult for me to make a letter out of this unless I have something more in the way of information. Will any Association interested in this matter send me specific instances of delay which has taken place? If you can send me envelopes on

which you have post marks, it will be much more convincing to the Postmaster-General than the simple statement that there has been delay in delivery.

Water-Ways.

The Chairman.—We will now pass on to Item No. 20—Water-ways.

Sir Fairless Barber.—I would refer you to a letter dated the 3rd of May last from the Federation of Indian Chambers of Commerce and Industry to the Secretary of the Government of India, Commerce Department. I move the following resolution:—

“That this Association do support the views expressed by the Federation of Indian Chambers of Commerce and Industry in their letter dated the 3rd May to the Secretary of the Government of India, Commerce Department.”

The letter in question is a long one and I should not like to take up your time by reading it, but the idea of the thing is that there should be Water-ways Board much on the same lines as the Railway Board. I think that it is possible in those parts of this Presidency in which we are interested, to greatly improve our Water-ways and make them useful to us to a much greater extent. I have nothing more to say.

Mr. W. K. M. Langley.—I second that resolution.

The Chairman.—With your permission, gentlemen, put this resolution before you.

Sir Fairless Barber moved and Mr. Langley seconded.

“That this Association do support the views expressed by the Federation of Indian Chambers of Commerce and Industry in their letter dated the 3rd May to the Secretary of the Government of India, Commerce Department.”

The Chairman.—Will those in favour kindly hold up their hands? Those against?

The resolution is carried.

The Chairman.—I may inform you that we are up-to-date in our agenda now, and I propose to adjourn the meeting until 10 o'clock to-morrow morning.

The Meeting then rose for the day.

Fourth Day, Thursday, 22nd August, 1929.

(MORNING SESSION).

The Meeting re-assembled at 10 o'clock in the morning.

The Chairman.—Gentlemen, Notice has been given of a meeting of the General Committee to commence at 10 o'clock this morning and of the Sixth Annual General Meeting of the Southern Planters' Benevolent Fund at 10-30 a.m. I am postponing both these meetings until the conclusion of the present one.

Coffee.

The Chairman.—The first subject on the agenda this morning is Item No. 34, under the heading of Coffee. No notice of any resolution has been received. Has any delegate anything to say under this heading?

Stephanoderes.

The Chairman.—We will now pass on to Item No. 31—Stephanoderes. A resolution stands in the name of the Coorg Planters' Association, but I am not certain. Mr. Morgan, as to whether you wish to move it or not?

Mr. J. S. H. Morgan.—Mr. Chairman and Gentlemen, my Association has asked me to bring forward a resolution, as in our opinion, we consider the danger of the import of this pest a very serious one. We think that the closing of all ports in Southern India is not sufficient to prevent the pest from arriving in India and we believe in that very solid fact, namely, that prevention is better than cure. It is a well-known fact that coffee is imported into other ports, other than the Southern India ports, and there is every possibility of berries coming from Africa being infested with the pest. Our resolution aims at putting a complete stop to this pest coming into India. It has been brought to our notice, since we arrived here, that if we have any discussion to-day on this subject, there is a great possibility of the Government of India re-considering the matter and refusing to come to our assistance to a greater extent. We would like our Political Secretary to help us. We should very much like to ask Mr. James to explain the position with regard to this point and also to ask Dr. Coleman what his views are on the subject. We know that Kenya coffee is imported into

Bombay, because the Army and Navy Stores advertise that they have got this coffee. May I also, with your permission, alter the resolution very slightly as follows:—

“That in view of the reply from the Director of Agriculture to the resolution proposed by Capt. E. H. A. Travers Drapes and seconded by Mr. A.E.J. Nicolls, this Association thanks the Government of India for having met their wishes in closing the ports of South India. As at the same time in their opinion coffee imported into any part of India, whether in bags or not, can still be the cause of the introduction of this pest, this Association, therefore, requests **that the Government of India do consider the question seriously and sympathetically and so prohibit the importation of all coffee other than roasted and ground into any port or across any boundary in India.**”

Mr. W. K. M. Langley.—I beg to second this resolution Mr. Chairman. I do not know much about this *Stephanoderes*, except this, that after staying up late for the last few nights, I fancy that I have got it myself. (Laughter). I am seconding the resolution partly because it seems desirable that there should be an open discussion on such an important subject as this, and partly because my own firm is deeply interested in coffee themselves. Well, in the first place I think we ought to make it quite clear that we are extremely grateful for what the Department of Agriculture has already effected in connexion with stopping the importation of coffee, which may have this pest, into the ports of South India and we are grateful to the Government of India for what has already been done, but obviously unless it is stopped at all ports, the present position of the Government of India can have very little effect on checking the pest. Bombay and Mangalore which are the principal coffee markets in India are in very close touch with each other and there is not the slightest doubt that the most likely place from which this pest might reach the coffee districts is from Bombay. Well, take a similar sort of case and put it in another way. Take the case of the Foot and Mouth Disease. It would be perfectly useless if England closed all the ports except Liverpool. Just in the same way, it seems to me, that in order to make this movement absolutely effective, we must have all ports in India closed to the possible introduction of this pest. It

is a very serious pest. I have been told by a gentleman, last night, who knows a great deal about conditions in Java that the estimate in Java is that they lose 25 per cent. of their crop in coffee owing to *stephanoderes*.

Just before sitting down, I should like to emphasise the fact that this resolution is not an attempt to exclude coffee as such. We are not trying to exclude coffee, which merely competes with our coffee, in the local market. All we want to do is to exclude coffee which might have the effect of introducing what appears to be a very serious and dangerous pest. (Applause).

Dr. Leslie Coleman.—Mr. Chairman and Gentlemen, I have come here this morning not to express my views on this resolution, but rather to bring to your attention certain features of the situation, which may not be known to you all. The other day I mentioned the fact that in Mysore, in the near future, we are likely to have a considerable increase in the area under robusta coffee. I personally have been responsible, recently, for an attempt to extend coffee cultivation to an entirely new portion of the Mysore State, by the introduction of robusta. We are just trying a small plot in one of our experimental farms in Shimoga District, far from any cultivation at the present moment, and if this plot is successful, it is highly probable that you will find small plots of robusta coffee scattered all over the Shimoga District, under Indian cultivation. I understand that there are small plots in some parts of Coorg. I am not so familiar with that place, as I am with Mysore. As you are probably aware *stephanoderes* attacks robusta much more seriously than it does *liberica*. The situation is more serious in the lower elevations, than in higher elevations—I mean elevations below 3,000 feet and those are the elevations, of course, in which we find robusta grow. This will introduce quite a new feature into the coffee cultivation in South India and, I believe, will introduce a much greater danger of damage from this pest than what has existed in the past or is existing at the present moment and, I think, we have got to face that in the future.

I agree entirely with what Mr. Langley has said, that it is practically useless to think of closing the South Indian ports and to leave Bombay open. Now it probably is unlikely that coffee, that is brought in here for consumption

purposes, will be the most serious, or, at least, the chief source of danger. The chief source of danger will be the import of coffee seed and I have no doubt that the members of the Upasi would be prepared to pass a self-denying ordinance, although I am not quite sure of that from the experience of the past year, and definitely decide not to import robusta seed from Java. But I wish to point out that as far as Mysore is concerned, the European planters and the members of the Upasi occupy roughly 25 per cent. They form a very small proportion of the area under coffee, and I do not see how we are going to legislate for the other 75 per cent. As a matter of fact we have some progressive Indian planters who are taking to robusta coffee. I think I will be able to persuade these gentlemen not to buy seed from Java, if they have any intention to do so. But I ask you whether it would be possible for you or any other person or the Government to persuade a large number of planters to agree to that sort of thing if these planters are not organized. As you are probably aware the Indian planters in these estates are not properly organized and I do not see any prospect in the immediate future of their being organized. My own personal feeling is that we ought to do just the opposite thing to what we have done. You should ask the Government of India to keep open only one port, namely, the port of Madras, for the importation of this coffee seed and I will tell you why? Because you have in Madras your organization—the U.P.A.S.I. headquarters—and it might be feasible to come to some arrangement with the Madras Government, or the Government of India, to establish a fairly effective quarantine station. As you are probably aware a very similar case has occurred as regards cotton. A certain amount of cotton is imported from America every year and there is quite a definite danger. I do not think the danger is so great in the case of cotton, as it is in the case of coffee. The Indian Cotton Committee persuaded the Government of India to establish regulation, whereby Bombay should be the only port through which American cotton could be imported into India. I am personally doubtful whether we shall be able to persuade the Government of India, even in the future, to close all the Indian ports to coffee. Coffee does not affect so many lives as cotton. The Government of India therefore are not likely to be so propelled towards legislation as they were propelled in the case

of cotton. I do believe honestly that if coffee is to be imported, it should be imported into one port only and that port should be under control. I claim that Madras would be a much more suitable port for that purpose than Bombay. I do not know whether this aspect of the question has ever been raised with the Government of India. I have not the slightest idea about it. I am completely out of touch with the conditions in India in general, but I would represent to you that it is a feasible question to be considered. We in Mysore are in a very difficult position. We are absolutely at the mercy of the Government of India in this respect. We cannot protect ourselves. It is impossible. Even if the Government of Mysore should be able to pass an ordinance preventing the importation of coffee into Mysore from outside, such an ordinance could not possibly be carried into effect. We have transport from all sides into Mysore, and you will agree, that it would be just as impossible to prevent the importation of coffee into Mysore as it would be to import whisky into the United States ! (Laughter).

I do not think I have anything more to say on this question, but I do feel very strongly that there is a very definite danger to us in Mysore, not from the standpoint of the European planters solely, but from the standpoint of the coffee planters whom I have the honour to represent here to-day. That is all I have to say Sir. (Applause).

The Secretary.—The Association first brought this matter up in the year 1925, and at first we could not get the support of the Government. Last year you passed a resolution at the annual meeting which was forwarded to the Government. It reads as follows:—

“That this Association tenders its thanks to the Government of India for having given the possibility of the introduction of *stephanoderes hampei* into the Planting Districts of India, its serious consideration, but is of the opinion that, while, the prohibition of raw coffee beans into India in bags may minimise the danger, it will not entirely eliminate the risk, as the potential carrier of the pest is the bean itself, and these beans are at present imported by non-planters for their personal consumption into towns situated in coffee growing areas, where in many instances, the consumers reside in

close proximity to Coffee Estates. This Association, therefore, respectfully requests the Government of India and the Government of Madras to go further into the subject, with a view to affording the Coffee Planting Industry in India (upon which the livelihood of so many of its subjects depends), complete immunity from all possibility of the introduction of this dangerous pest."

That led to no results until the Nilgiris Planters' Association and the Shevaroy's Planters' Association took active steps to see if they could find beans, infected with *stephanoderes*, in their own districts. Both the Associations sent us samples. We had these investigated by the Entomologist at Coimbatore. He reported that both contained this pest. We then sent those samples to Pusa and asked the Imperial Entomologist to give his report on them. His reply was that he was unable to give a report on what he found in the coffee. We then wrote to Java and asked the people in Java whether those samples contained *stephanoderes*. The answer we received was that there was not the least doubt that the beans were infected with *stephanoderes*. We communicated that to the Government of India, as soon as we possibly could. Then in February we received a long telegram from the Government of India in which they agreed that coffee, other than roasted or ground should be prohibited, but they were reluctant to make a prohibition all Indian in scope, and suggested that prohibition of import should apply only to ports in Southern India.

The position now is that we have accepted this as a preliminary step towards what we all want—that is prohibition everywhere. I am informed that the matter is to be dealt with by the Legislative Assembly and will come up during the Session in September.

Now with regard to Bombay there is no importation of Kenya coffee into Bombay, according to the Customs' returns. If the Army and Navy Stores are selling it, they may be getting it through Calcutta. But there is not the least doubt that a very large quantity of coffee is coming into India from Ceylon—it cannot be the product of Ceylon. It is coming in through Tuticorin and Negapatam.

Mr. F. E. James.—Mr. Chairman, the Coorg representatives have asked my opinion as to the effect which such a resolution might have on the Government of India. I see that this question has been raised before, but I do not think that to raise it again will be necessarily detrimental to the steps that have already been taken.

From what Dr. Coleman has said, also from what the Government of India have said, it appears to be fairly obvious and that it is unlikely that they would entirely prohibit the import into all ports in India. Therefore is it not better to endeavour to suggest that only one port should be kept open and that that port should be controlled. That, I suggest, is a method which is likely to commend itself more to the Government of India than the method suggested in the present resolution.

I would make two other suggestions. It would be necessary in making representations to the Government of India to supply as far as possible definite figures in regard to the importation of coffee in other ports than South Indian ports.

Secondly, I would suggest that, inasmuch as you now have a planter representing Europeans in this Presidency in the Legislative Assembly in Simla and Delhi, he should be asked for his co-operation and to get into touch with the officials of the Government of India with a view to finding out what their particular reaction would be to the suggestion of Dr. Coleman. I also suggest that it would certainly strengthen your case if you could get the support—the active support—of Dr. Coleman, Director of Agriculture, in Mysore, in making representation to that effect. I would further suggest, if possible, that you get the support of the Administration of Coorg on the same matter. I think if the matter went up in that kind of way, there is not the least doubt that, at any rate, sympathetic consideration would be given to the question by the Government of India.

The Secretary.—Would you suggest to give up then what we have already gained and ask Government to reconsider the whole matter? Would you suggest putting forward a completely new proposition to the Government of India, which, naturally, would wipe out everything that has been done so far?

Mr. F. E. James.—I do not think so because your original idea was that the importation should be prohibited at all the ports, that is what you wanted. You have got a part of that request granted. Your attitude now is, "We are grateful for what we have got; it is not enough." There is no reason why we should not put forward to the Government of India reasons in support of that view. If the Government of India is likely to say: "No; we can realize your difficulty, but we do not think it a practical proposition to forbid the importation of coffee in all the ports." I would then suggest that it is quite reasonable for you to say: "Very well then, if this is the case, what about this suggestion, namely, that you keep one port open and control it." It is not for me to say what that port should be or what kind of control should be exercised. But I suggest in view of what Dr. Coleman has said, that it does not jeopardise your position in the least, I do however point out in the first place that you should have very definite information behind your request, and secondly that you should take the opportunity of asking your representative in the Assembly to press your case and to get into touch with the Government of India and find out from them what view they are likely to take of your proposal. (Applause).

Mr. H. L. Pinches.—May I ask Dr. Coleman a question? What line of action should we take up? It would help us if you could tell us whether you consider that, if we restricted the importation of coffee to the port of Madras and had the control in our hands, whether that would be a sufficient safeguard against the importation of the disease? What would you consider as a sufficient safeguard for your Indian planters and for planters in Mysore?

Dr. Leslie Coleman.—Well, Sir, might I say that I have thrown a bomb and unknowingly I have injured you. Nobody had any intention when I rose to my feet to make any change in the resolution. I do not think that I can advise you to let the resolution go through as it is. The present legislation might be allowed to go through as Mr. Waddington suggested. They may say: "Well, that is enough. Do not come near us for another 10 years. I do not know the psychology of the Government of India sufficiently to say that. On the other hand you may look upon this as the thin end of the wedge. I leave the matter entirely to the meeting. As regards the question which Mr. Pinches raised,

what I feel is this: "No means would be so efficient as completely blocking the importation of coffee." But you cannot get it. I think that is practically out of the question. I do not think you can persuade the people of India who drink coffee to do that. They want to get it as cheap as they can and they produce a cheaper grade of coffee outside India than what we do. You have got a huge body of Indian coffee drinkers to face and then you have got the legislature. You are more interested in their things than they are in your concerns especially in the case of an Indian State such as Mysore. I do firmly believe that such a control as I have suggested would be the best possible method of control. The importation of coffee into one port would be most satisfactory. If that be the case I would feel very much happier under those conditions, than I would feel under the conditions that are proposed to be established by the proposed resolution. I have really not thought enough to give advice. I think we have had quite a frank discussion here and I would like you to go into this question during the year and then bring it up at the next session. You will probably get this resolution through. Undoubtedly it will help. The dangers which I have pointed out may be more remote dangers, but they are dangers that are coming. How rapidly they are coming nobody can foresee. I suggest that course of action. Accept the resolution as modified by the mover and then perhaps form a committee to go into the whole question during the year and formulate your proposition for the next session.

Mr. J. S. H. Morgan.—Mr. Chairman, from all the remarks that have been passed, I think the idea is that this resolution should be passed and then be kept in the Upasi Office until such time as sufficient opinions have been collected.

The Chairman.—Mr. Morgan, if you feel like this about your resolution, do you not think that it would be a good thing to add to it. "That the Executive Committee be instructed to go into this matter?"

Mr. E. H. A. Travers Drapes.—I just wanted to bring up an amendment to that resolution. I have not got a seconder yet. I beg to move the following amendment:—

"That the Executive Committee do go into the question of the danger of importing coffee infected with

stephanoderes and make such further representations to the Government of India as they consider necessary to deal effectively with the matter."

Mr. A. K. Weld Downing.—I second it.

Mr. F. E. James.—May I be allowed to make one suggestion? It would probably be unwise to include in your resolution any definite reference to 'control port.' Leave the first part of your resolution as it stands and instruct the Executive Committee to go into the matter in the meantime and put forward such recommendations as they think best. I think it would be unwise to include any reference to 'control ports' which is bound to be published.

Mr. W. K. M. Langley.—Can Mr. Coleman express an opinion with regard to effectively dealing with the pest by fumigation or other means?

Dr. Leslie Coleman.—I am not prepared to give my opinion definitely on that question. I may assure you that the difficulties experienced with the cotton bales are as great as you would have to face, in the case of coffee. I take it that it would be an easier thing to get into a bag of coffee than to get inside a bale of cotton.

IN COMMITTEE.

The Secretary.—Will Dr. Coleman tell us if in Java they have found any way of disinfecting which does not kill the germs of the coffee?

Dr. Leslie Coleman.—I do not know. Well, in that case you are up the Government sleeve absolutely. (Laughter).

The Secretary.—We went into this matter very carefully when the question first came up in 1925-26 and 1927 and we could not find any reliable system of disinfecting the coffee although the Dutch claimed they had one, but it killed the germs. Then in the Executive Committee we determined that there was no safeguard against this pest, and the Government itself in their telegram have acknowledged that, there is no known safeguard against *stephanoderes* except roasting and grinding it.

Dr. Leslie Coleman.—I am not prepared to express my opinion on that.

The Secretary.—We, therefore, asked for the prohibition of import of all coffee except that which was roasted and ground.

Mr. J. S. H. Morgan.—Mr. Chairman, that has already been done. The Southern ports are going to be closed for the importation of this coffee. What we want is to close all the ports.

The Secretary.—Directly prohibition in Southern India is brought into force, we can urge that what has been done is insufficient.

The Chairman.—Mr. Travers Drapes, I think you have moved an amendment on this subject.

Mr. E. H. A. Travers Drapes.—Yes Sir. The Executive Committee have heard all the discussion we had this morning on the subject and I do not think it is necessary for me to say anything more. They know what our dangers are and we can safely and with confidence leave the matter in their hands.

Dr. Leslie Coleman.—A question was raised a short time ago about the effect of the fumigation. I take it that the stuff would be imported largely and, therefore, no kind of fumigation could be introduced even if it did kill germs. As regards Mysore, we have absolutely given up any thought of importing seed from Java owing to this danger.

OPEN MEETING.

The Chairman.—I shall now read the resolution as well as the amendment to the meeting:—

RESOLUTION.

“That in view of the reply from the Director of Agriculture to the resolution proposed by Mr. E. H. A. Travers Drapes and seconded by Mr. A. E. J. Nicolls, this Association thanks the Government of India for having met their wishes in closing the ports of South India. As at the same time in their opinion coffee imported into any part of India, whether in bags or not, can still be the cause of the introduction of this pest, this Association, therefore, requests that the Government of India do consider the question seriously and sympathetically and so

prohibit the importation of all coffee other than roasted and ground into any port or across any boundary in India."

AMENDMENT.

"That the Executive Committee do go into the question of the danger of importing coffee infected with stephanoderes and make such further representation to the Government of India as they consider necessary to deal effectively with the matter."

Has any delegate anything to say on this subject, before I put the amendment to the meeting? I will now put the amendment to the meeting gentlemen.

Will those in favour kindly hold up their hands? Those against?

The amendment is carried.

Tea.

The Chairman.—The next Item is No. 33—Tea. Has any delegate anything to say in connexion with Tea which has not already been brought up at this meeting?

Rubber.

The Chairman.—We will now pass on to Item No. 35—Rubber. We have no notice of any resolution. Have the Rubber Delegates any matter which they wish to bring up?

The Labour Department.

The Chairman.—We will now deal with the subject of Labour Department. Will Mr. Strachan the convenor of the Select Committee, report to the meeting?

Mr. G. R. Strachan.—Mr. Chairman and Gentlemen, in accordance with the resolution passed at the General Committee Meeting on Monday last the Sub-Committee, then appointed, have fully considered the subject of future subscriptions to the Labour Department and have arrived at the following conclusion:—

"This Sub-Committee, after reviewing in detail the various proposals that have been received for consideration, have come to the conclusion that, taking everything into consideration, the fairest method for collecting subscriptions for the Labour Department

is to assess all Districts on an all-round rate per acre in the proportion of 4, 2 and 1 for Tea, Coffee and Rubber and Minor Products respectively, calculated yearly according to Budget requirements."

This, Mr. Chairman and Gentlemen, is rather a bald statement, and I think it is only right, therefore, that I should endeavour to explain the Committee's reasons for arriving at this conclusion.

Prior to the convening of the Sub-Committee, the Director had prepared a series of most interesting and instructive graphs, which on being explained proved conclusively and to the satisfaction of, I think, all members that the present method of calculation is not a fair basis of assessment, especially when taking into consideration, the actual work done by the Department for individual Planting Districts. This consequently ruled out the present method, and other suggestions, which were before the Committee, all consisted of attempts to make a compromise between having partly a flat rate and partly a cess, either on the total number of coolies recruited or on the volume of work submitted to the Department, by the different Planting Districts.

The Director's graphs very clearly show that the cost per coolie recruited in the various Divisions, and the number of cases submitted to the Department vary so much from year to year that any basis, other than a flat rate, is bound to fluctuate to such an extent as to be unfair to some Planting District or another, from time to time, apart from the fact that such undue fluctuations, are a great drawback from the business financial aspect of the question.

Whatever method of assessing subscriptions is adopted, it is bound, from time to time, to be more advantageous to one District or another, but it would appear that a flat rate is less likely to be subject to such a contingency than any other, and the Committee are consequently of the opinion that this is the fairest basis of calculation.

There is one point, Gentlemen, which I should like to stress, namely, that the Department's expenditure is bound to increase annually, if only on one account, which is the commitment of the Association to its employees under the existing terms of employment and scales of pay. The Director estimates that the maximum amount of these

commitments is only likely to be reached in ten years, at a rate of from Rs. 6,000 to Rs. 4,000 per year, in gradually diminishing amounts, up to a total of some Rs. 44,000 in the ten years. This increase represents an average yearly increase of 8 pies per acre on Tea, 4 pies per acre on Coffee, and 2 pies per acre on Rubber, based on the present subscribing area. Thus we have to face the fact that during these 10 years, Tea may have to raise its rate of subscription by annas 6 per acre, Coffee by annas 3, and Rubber annas $1\frac{1}{2}$ unless the Control Committees can justify their existence by framing their budgets in such a manner that a saving in expenditure can be effected in other directions without detriment to the efficient working of the Department.

As regards the present proportions of 4, 2 and 1 per acre for Tea, Coffee and Rubber and Minor Products, the Director has worked out that, during the past 5 years, the number of cases submitted to the Labour Department by Tea and Coffee respectively for every Rs. 1,000 subscribed by each product is approximately the same; Coffee only having sent in a few cases more than Tea for the amount of money subscribed. In other words Coffee submits only a little over half the number of cases per acre that Tea does. Hence the proportion of 4 to 2 is proved to be as fair a one as can be arrived at. The Rubber and Minor Products area subscribing is mostly part of Tea and Coffee Estates, and hence it is impossible to definitely calculate the number of cases which actually belong to them. It is however generally accepted that the present proportion is both acceptable and fair. (Applause).

I beg to move the following resolution:—

"That, in view of the conclusions come to by the Sub-Committee, appointed at the General Committee Meeting held on the 19th August 1929, to go into the question of future subscriptions to the Labour Department, the report of the Sub-Committee be adopted and the Labour Department Rules be amended so as to give effect to their recommendations."

Mr. R. J. McMullin.—I second it.

The Chairman.—There is a resolution before the meeting which has just been read by Mr. Strachan and I do not propose to read it again unless any delegate wishes me to.

Will those in favour kindly hold up their hands? Those against?

The resolution is carried.

The Chairman.—I take it that the Central Travancore Planters' Association do not wish to bring their resolution before the meeting?

Mr. R. J. McMullin.—No Sir.

Scholarships.

The Chairman.—We will now revert to Item No. 8—Scholarships which Mr. Congreve had already touched upon at the opening of the meeting.

Mr. C. R. T. Congreve.—Mr. Chairman and Gentlemen, the resolution reads as follows:—

“That in view of the importance of improving the educational facilities of the labouring classes, the Executive Committee be instructed to prepare a scheme whereby the U. P. A. S. I. undertakes the education of a certain number of suitable boys from amongst the workers on estates belonging to District Associations.”

With regard to this resolution, gentlemen, I have asked the Executive Committee to prepare a scheme. Within the time at my disposal, it was not possible for me to get the necessary figures. Through the kindness of the Director of Education, I am in a position to give you more or less the cost of educating boys for seven years up to the Sixth Form. This cost works out for five boys for seven years, total including fees, books and Board at Rs. 3,450 per boy or Rs. 493 per annum per boy. I do not think to begin with it would be wise to support and educate a large number of boys and I would suggest that five boys per year, for the first few years, would be ample for our purpose. You will see that the cost is not very much and the benefit which, I hope, will accrue from it will be much more than the cost. We may experience some difficulty to begin with in finding suitable hostels for these lads to live in, but at Salem there is an excellent Hostel run now under the Labour Department—originally it was run privately—which has had great experience in looking after boys of the class, whom we wish to

educate, and the Salem schools used to take in such boys. There will be no difficulty in doing so and I would suggest that the Executive Committee ask the Labour Department whether they can use that hostel for the boys to begin with. I had some idea that we might give the scholarships and ask the Government Labour Department to run the education, but I have received advice from several prominent Indian friends and I would, therefore, suggest that this be not done. We should keep in close touch with the lads we educate, and have their reports sent in to our office, so that we may know exactly how they are getting on, what they are doing and what their conduct is. We would then be able to say whether it would be advisable to go on with it or not to go on with it. There is one point upon which I want to lay emphasis, and that is, after educating these lads it would be absolutely essential to find jobs for them. We cannot educate them to such and such a standard and then leave them to earn their own living. If they want jobs we should find jobs for them as Writers, Clerks, etc. Educated boys would be found most useful to fill up such posts.

I do not think, gentlemen, I have got anything more to say on this subject. As I said before, it was not possible for me to get all the figures in this connexion at the time. This resolution only asks the Executive Committee to go into the matter and they will be able to ascertain what is necessary. (Applause).

Mr. H. L. Pinches.—Mr. Chairman and Gentlemen, I have great pleasure in seconding Mr. Congreve's resolution. I do not think there is much I can add to what Mr. Congreve has told us on our opening day and to-day. As he has pointed out, the resolution does not commit us to anything very definite and, I think, it is very wise that it does not do so. It is certainly an important step that we propose taking later and, I think, therefore, that we should first of all look into the matter very closely. This resolution gives the Executive Committee an opportunity to do so and it also gives you an opportunity to consider the matter again before we adopt it and put it into actual practice. (Applause).

Mr. E. L. Poyser.—May I ask Mr. Congreve exactly what type of worker he proposes to educate? Is it our coolies' sons or is it the sons of our Writers? My Writer,

for example, is an Indian who has a son. Will you educate him or will you educate a cooly's son? I do not quite gather your view whether you wish to take both, or you wish to make any special selection from the various castes—from the highest to the lowest?

Mr. C. R. T. Congreve.—With reference to what Mr. Poyser has said, my idea is to educate the labouring classes—not the sons of Writers, but actually the sons of our labourers. These are the people that we want to uplift and these are the people that we want to help. A great many estates are already helping them by giving Elementary Education. I should like to see that extended to the other estates belonging to the Upasi. Then we can take from those boys suitable lads who in our opinion will benefit by receiving a university education—I mean those who are suitable. It must be remembered, of course, that out of the lot you choose, all cannot be expected to be a success. If we get one or two out of each batch, it would be doing a very great thing for the labouring classes, for ourselves and for all the employers of labour in South India.

The Chairman.—Does anybody else wishes to speak on this subject, before I put the resolution to the vote?

Mr. R. J. McMullin.—May I ask, if this resolution is passed, the matter will be referred to the various District Associations before any action is taken?

The Chairman.—The resolution refers the matter to the Executive Committee and I imagine that the Executive Committee will naturally consult the planters as a whole as to their wishes in the matter.

Mr. R. J. McMullin.—How would they be selected?

Mr. C. R. T. Congreve.—I have left the scheme to the Executive Committee purposely. Of course as I said owing to there being not much time at my disposal, I was not able to work these things out, and so the Executive Committee will work out the cost, the way they are to be recruited and all the necessary details. A scheme will then be put up for your consideration.

The Chairman.—The resolution before the meeting is as follows:—

“That in view of the importance of improving the educational facilities of the labouring classes, the

Executive Committee be instructed to prepare a scheme whereby the U. P. A. S. I. undertakes the education of a certain number of suitable boys from amongst the workers on estates belonging to District Associations."

Has any delegate anything further to say ? * Will those in favour kindly hold up their hands ? Those against ?

The resolution is carried. (Applause).

Credit Balances.

The Chairman.—We will now pass on to Item No. 40—Disposal of Credit Balances. From the agenda you will see that there are two resolutions which appear to be very intimately connected. I will read them both to you :

Annamalai Planters' Association.

"That surplus balances of departments should be placed into the U. P. A. S. I. General Reserve, but that each individual Department shall have a prior call on the amount standing to their credit as from 1919."

Central Travancore Planters' Association.

"That in view of the recurring annual surpluses in the U. P. A. S. I. General Budget, this Association does not consider that any increase in the cesses of any U. P. A. S. I. Department should be necessary."

Mr. R. J. McMullin.—Mr. Chairman, we wish to withdraw in favour of the Annamalai Planters' resolution.

Mr. A. W. F. Mills.—Mr. Chairman and Gentlemen, I will not read the resolution again as the Chairman has just put it before you. Our intention, in bringing this matter up, is not to make it a contentious matter in any way, neither is it our idea to make the different Departments absolutely water-tight. The surplus balances will revert as heretofore to the Upasi General Reserve, but it struck us that it would be much easier for our Departments to work out their future policy if they know that they have the prior call on surplus balances standing in their name. It also seemed to us that monies that have been subscribed with definite objects, should not be used to support any other Department, except in

cases of grave emergency—I do not think I have anything more to add Mr. Chairman.

Mr. R. J. McMullin.—I second it.

The Chairman.—The resolution before the meeting is as follows:—

"That surplus balances of departments be placed into U. P. A. S. I. General Reserve, but that each individual Department shall have a prior call on the amount standing to their credit as from 1919."

Will those in favour kindly hold up their hands? Those against?

The resolution is carried.

Budget and Finance.

The Chairman.—We will now pass on to Item No. 41—Budget and Finance. Will any delegate who wishes to speak on this subject now do so?

No delegate having anything to say on this subject, we will take another item which is not on the agenda.

Sir Fairless Barber, I understand that you wish to address the meeting.

Farewell to Mr. H. L. Pinches.

Sir Fairless Barber.—Mr. Chairman and Gentlemen, I feel honoured and happy to talk upon a subject which is not controversial. It is, I fancy, known to all of us that Mr. Pinches proposes to retire next Spring and that, therefore, this is the last meeting of the Association that he will attend. He has served us three times as Chairman and most of us can recall the courtesy and ability and energy with which he filled that position. His work as Chairman needs little comment from me, for it was as patient as it was valuable, and indeed those annals of the Association—the Book of Proceedings—indicate clearly the wide range of subjects that called for his administrative ability and I can assure you that he never failed in it.

It is in other ways that I wish to speak of him now, for after many years of close contact with the working of this Association, I have seen how frequently it happens that the

spade work done behind the screen is unheeded or unrealized by those for whom the work is done. Mr. Pinches, when he first attended these meetings, was not in the position he now holds, he was in name representing a District Association, but in effect he was representing a powerful Company—That Company was a self-contained organization and by the fact that it had the controlling voice in the District Association, it made the *Kanan Devans* the most powerful Association in the Association of Associations. He was never hostile to the aspirations of the U. P. A. S. I., as far as I know, but I do not think I exaggerate, when I say that, prior to 1912 or 1913, it was frequently aloof. You must bear in mind that at that time the Anamalais was a comparatively small District, that the West Coast and Mundakayam had only become planting districts in the latter years of the previous decade, that the Nilgiris was still in the hands of the small owner, and that the chief power in the U. P. A. S. I. vested with them and their colleagues in the Coffee Districts of Coorg, Mysore and the Shevaroyes. However, the changes that were taking place, the rush for labour, for rubber and tea extension, and the demands for assistance and protection that were called for, made it obvious that our Association, as then organized, could not fulfil its function. I am not wishing to give you even a short outline of the history of our Association, but to appreciate Mr. Pinches' services to you, it is necessary to recount to some extent the position of planting politics at that time. Some of the best brains in our community had pinned their faith on labour legislation to relieve one ill, and though they had the full support of the Association in their work, it is a curious incident in our records, that as soon as their work reached fruition in an Act, it was almost unanimously repudiated by the District Associations. Great bitterness was engendered and the U.P.A.S.I. was badly shaken and that shaking may be said to have made it what it is. Government help in acceptable time was not to be had, and that best of all help—self-help—was decided on. I am sorry if so far I have been tedious, but Mr. Pinches comes on the scene now in a most effective way. Messrs. J. F. & Co. had a Labour Department of their own, working under the efficient control of the late Mr. Aylmer Martin, and it was felt that the U. P. A. S. I. had no hope of starting a Labour Department in competition with Messrs. J. F. & Co. and that the only hope of reaching salvation lay in their co-operation. It is indeed fortunate.

gentlemen, that we had in Mr. Pinches and his colleague Mr. Martin far-seeing men for it was through their support and through the way in which they placed the matter before Mr. P. R. Buchanan, the then General Manager of Messrs. J. F. & Co. in South India that the U. P. A. S. I. Labour Department became established. You will understand it was no small matter to get Messrs. J. F. & Co. to scrap their own Department and to come in with us. They had their eye on us and, to all appearances, our chaos was to their advantage and would have prevented our even competing with their organization. This was patent at the time and the Labour Department looked like being a rickety baby that would never live. I think I can claim that it was Mr. Pinches' patience, honesty and personality that pushed it through. (Applause). In doing so he had a hard time and had to sacrifice a friend in the cause of unity. The friend bore no ill-will and Mr. Pinches action enabled him to do the most important work in re-organizing the U. P. A. S. I. and giving it the constitution that it has to-day. (Applause).

Gentlemen, I have known Curly for more than a generation. Since we were in Ceylon together, I have agreed with him and have disagreed with him, that is merely a matter of mood, because he like all of us can be unreasonable after a late night, (laughter) but I can assure you I have never lost sight of those attributes of his which have made him your friend and my friend and probably the best friend of the U. P. A. S. I. (Applause).

I understand that I am only expressing your feelings when I express thanks to Mr. Pinches for what he has done for us and our Best Wishes to him and Mrs. Pinches for a Bright and Happy retirement. (Prolonged applause).

The Chairman.—Gentlemen, on your behalf, I would like to associate myself with everything that Sir Fairless Barber has said with regard to Mr. Pinches and I am perfectly certain that you agree with every word that he has said. (Applause).

Mr. H. L. Pinches.—Mr. Chairman, Sir Fairless Barber and Gentlemen, this is a great and unexpected honour that you have done me and I really do not know how to reply to you. I thank Sir Fairless Barber for the very kind remarks he has made about me, they are all too flattering. I have

always tried, as far as I could, to help the Association along, but I hardly think that I have done as much as he has made you to believe.

Regarding the Labour Department, certainly at that time I did all I could to get the present Labour Department started successfully, but in this I had the help of Sir Fairless Barber himself, of course, he omitted to mention that. Had this not been the case, we would never have had the Labour Department we have to-day, and in sacrificing our own Department to the present Upasi Labour Department, I had really only taken a far-sighted view. As things have turned out it has been proved that it was just as much to our advantage as it was to the advantage of the Upasi.

I shall leave India next year with many regrets. I have now been in the country for 37 years and after such a long sojourn as that in India, one cannot leave it without feeling very sorry to do so. I shall also be extremely sorry to sever my long connection with the Upasi. I am quite sure that the Upasi will steadily go forward, as it has done in the past. It will have its set-backs, as I am quite convinced it has over our Scientific Department at this meeting, but on the whole it will steadily advance and the little blunder such as that made over this Scientific Department can be put—and I hope will be put-right.

I hope and expect that I shall be able to help you when I do settle down at Home, and I am sure you will all believe me when I say that if there is anything I can possibly do to help forward the interests of the South Indian Planters, you have only to ask me. (Loud Applause).

Gentlemen, that is all I have to say, except to thank Sir Fairless Barber and you all for your kindly Wishes to my wife and myself in our retirement. (Applause).

Election of Auditors.

The Chairman.—We will now pass on to Item No. 4—Election of Auditors. I propose from the Chair—unless any delegate has anything to say:—

“That the present Auditors, Messrs. Fraser and Ross, be elected as the Auditors for the current year on the same remuneration as heretofore.”

The resolution is carried.

The Election of Chairman.

The Chairman.—Gentlemen, this closes the Agenda of this meeting, except the election of your new Chairman for the forthcoming year. The papers will now be passed round.

The Secretary then passed round the ballot papers and the votes were then counted.

The Chairman.—Gentlemen, I have great pleasure in announcing to you that Mr. W. A. J. Milner of Twyford Estate has been elected as Chairman for the ensuing year and I should like to congratulate him on his election. (Loud and prolonged applause).

Mr. W. A. J. Milner.—Mr. Chairman and Gentlemen, I have to thank you very much for doing me this honour which I very much appreciate. I shall be very pleased to accept the honour and to do my best provided that my employers have no objection. I do not think they will have any objection. I thank you once more for the honour that you have done me. (Applause).

Mr. R. Fowke.—Mr. Chairman and Gentlemen, I have been given the very pleasant privilege of saying a few words of appreciation to you, Sir, for the work you have done for us during the past year. As an ex-Chairman myself I realize the many problems you have had to face and the amount of work you have had to put in, culminating in the succession of meetings which have so nearly terminated. May I express my admiration, and offer my congratulations on the ability and patience you have displayed in so ably conducting your office. Not satisfied with your multifarious responsibilities, you have created a record that is unique in the history of the U. P. A. S. I. Chairmen—I refer, Sir, to your engagement and wedding during your period of office. (Applause).

It gave us all great pleasure to know that we will not be losing your services entirely as under the resolution, passed at the meeting, we will have the benefit of your advice on the Executive Committee during the coming year. No words of mine can adequately express how great our debt of gratitude is to you, Sir, and I take the opportunity of conveying our most sincere thanks and appreciation for your work during the past year. In this I feel sure I have the full support of the meeting. (Applause).

Mr. R. Lescher.—Mr. Fowke and Gentlemen, I can only thank you very much for what you have said about me and I further thank you for your forbearance throughout the present meeting. It has been a very great pleasure to me to have done anything possible for the Upasi during the past year and before I sit down I would like again to express my thanks to the Executive Committee and all the members of the Upasi staff for their ever ready help and assistance during the year and I think I should also like to thank the Secretary, the Assistant Secretary and the Indian staff in the Madras office. I should particularly like to express my thanks to Mr. Waddington. (Applause). I should like to see the Scientific Department advance and in the course of the next year when delegates have had an opportunity of discussing matters with their Associations I believe it will go forward.

I thank you again gentlemen for all that you have said about me. (Loud Applause).

I now declare the meeting closed.

DEPARTMENTAL ADMINISTRATION
REPORTS
1928-1929

UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA
SCIENTIFIC DEPARTMENT.

Administration Report for 1928-1929

OF

Dr. W. S. SHAW, Ph.D., M.Sc., A.I.C.,

Tea Scientific Officer, U.P.A.S.I.

I have the honour of submitting to you my Annual Administration Report for the year 1928-1929, dealing with the progress of work on the Tea Experimental Station.

Staff.—During the year under review The Tea Scientific Officer was on long leave commencing from 25th April. He returned to the Station on the 27th October. During his absence, Mr. K. B. W. Jones took charge of the department. No addition has been made to the Staff during the year, but it is hoped that an addition in the shape of an Indian Chemist, who will be able to carry out a certain amount of routine work and analysis, will be made during the coming year.

Buildings.—All buildings work has now been completed; the only portion of erection still remaining to be finished being the installation of the pipe system for the gas supply for heating purposes. This will have been completed before the end of June. Materials for this installation had been received on the Station during 1928, but the work was held up as a result of the Tea Scientific Officers absence on leave. According to the terms of Lease it was necessary to fence in the Station boundaries; this work was carried out during the monsoon.

CLEARINGS:—

(a) *1926 Clearing.*—The 1926 clearing is showing poor growth, but this is probably due to the exhaustion of the soil as it was previously Coffee land. A further possible cause

of the poor development is the degree of acidity of the soil. The acidity of various samples of soil from various parts of the 1926 clearing indicated at once that the degree of acidity was insufficient. It was felt that this gave an opportunity for determining the effect of increasing acidity by means of applications of Sulphur. This Sulphur has been ordered and the 1926 clearing will be divided into smaller plots and particular plots receive a treatment with Sulphur during August.

In September 1928 all plants on this clearing showing good growth were pruned down to 2 ins. and the pruning cuts protected with Skene's Wax. In April 1929 all those plants left from the September pruning were reduced to 2 ins. and the plants pruned in September received pruning at different heights.

The pruning received by the 1926 plots therefore has been as follows:—

Plot.	Jat.	September '28 Pruning.	April '29 Pruning.
1	Rangamatti ..	2"	9"
2	Nakhati ..	2"	6"
3	Mithenguri ..	2"	6"
4	Rajghur ..	2"	9"
5	Dhoolia ..	2"	12"
6	Dhoolia ..	2"	12"

The wood on which this pruning was done was good healthy wood, and if anything rather on the thin side, but this will thicken up as the bush develops.

During the year the 1926 clearing has received one light and one heavy, forking. During the monsoon the bushes were kept clean of weeds for a distance of 1 ft. diameter round their boles, the intervening spaces being kept down by grass knifing.

Supplying up of this area was done with the exception of one Dhoolia plot in June with useful basket plants. The Dhoolia plot omitted was supplied up in July with stumps. A small portion of old tea abutting into the 1926 clearing has been uprooted and replanted with Mesai Manipuri Basket Plants in order to make the 1926 clearing more uniform in shape.

(b) 1927 Clearing.—As stated in my previous Annual Report this clearing does not possess good soil. The young plants, although showing very good development during the first year, have definitely shown signs of going off on certain patches. Definite measures will be taken this year to ameliorate the condition of the soil, by a thorough system of trenches and green manuring. The trenches will take the form of honeycomb trenches and will serve as a demonstration plot for this system of trenching. This area has received the usual forkings.

In April 1929, all those plants showing good growth and the necessary development of growth were pruned down to 2 ins. All weakly plants were omitted from the treatment. The pruning cuts on all the plots with the exception of the Swinleybarie plot have been protected with Skenes Wax; the pruning cuts on the Swinleybarie plot have been protected by a type of Bees Wax, adapted for application to such cuts. The two methods of protection will be noted from time to time.

(c) 1928 Clearing.—This consisted of a small block of land behind the Laboratory, and also a portion of the steep slope lying between the Tea Scientific Officers Bungalow and the Laboratory, and running parallel with the length of the 1927 clearings. This land received a preliminary forking in the usual manner.

Planting up was commenced in the second week of June and completed before the end of the month.

The portion behind the Laboratory was planted up at intervals of 4 ft. x 4 ft. as follows:—

Division.	Jat of Plant.	No. of Plants.	Area occupied.
1	Betjan ...	1,040	0.32 acres.
2	Dangri ...	1,040	0.32 "
3	Dhonjan ...	1,040	0.32 "
4	Nellimunda ...	896	0.28 "
5	Betjan ...	384	0.14 "
6	Dangri ...	384	0.14 "
7	Dhonjan ...	408	0.15 "
8	Nellimunda ...	384	0.14 "

Vacancies in all these plots amount to 800 equivalent to 11 per cent. failures.

The portion along the steep western slope was planted up contourwise and drains cut at varying inclines as follows:

Division.	Jat of Plant.	Gradient of drains.	No. of plants.	Area occupied.
1	Bonaccord ...	Level.	1,200	50
2	Wild Burma ...	1 in 60	950	45
3	Dhonjan ...	1 in 80	950	35
4	Bonaccord ...	1 in 100	600	25

Contour planting is very seldom if ever done in South India, though in other planting areas, *e.g.*, Java it is advocated for use on steep slopes, as it is alleged that by working along the slope instead of up and down, natural terracing is effected and hence soil wash is eliminated or at least reduced.

Lining in this way is at first rather difficult, for, where the slope varies in steepness, the distance between the lines may vary enormously. Hence it is necessary in the beginning to consider very carefully the position of the base line, which runs down the hill from top to bottom, and then decide the spacing of the pegs from which, as starting points, the contour lines are to be traced subsequently.

If possible the base line should be put in at a place where the slope is uniform from the top to the bottom, or where this is not possible, where the nearest approximation to this condition is available. After having fixed the position of this base line, to determine the distance at which the pegs must be placed apart, it is advisable to go along to the steepest part of the slope and put in a few pegs along a line running down the slope at this part with a spacing of about three feet where the slope is very steep, or slightly more where the variation in slope compared to that of the original base line is not very pronounced. From these pegs contours are run back to the original base line and the distance noted between the points at which these contours cut the base line. The average of these is taken and the base line staked out at this spacing. Having thus finished the base line, one proceeds to trace contours from the pegs on this line. It is not necessary to trace every line. Every second or every fourth

line should be sufficient. The intermediate lines can be put in afterwards by sub-division by eye of the intervening spaces. After the tracing of the main contours the lining can be finished by marking off even spaces along these contours.

It is suggested that the spacing along the contours is most economically sound at 3 feet 6 inches.

Where the gradient of the slope is uneven or varies between wide limits it will be found that the distance between lines may amount to as much as 8—10 feet, which is one of the disadvantages of the system. It is, of course, possible under these conditions to put in a number of short lines, but this also has its disadvantages, owing to a certain amount of difficulty in arranging for plucking and cultivation.

Drains should run between the lines and at the same gradient as the lines of tea. Where the land is steep, this again is rather cramping as the whole space between the lines will in some case be occupied by the drain, to the detriment of the welfare of the plants on the edge and to the inconvenience of pluckers, etc.

It will be evident, therefore, that contour planting is most likely to be practicable where the slope, at points lying along the same contour, is fairly constant, and here with a little experience the trouble of lining would not be great, and the results obtained in the prevention of wash might more than compensate for the loss, if any, in number of plants per acre.

It is also fairly evident that it is only in rare cases that such suitable conditions exist.

On the portion planted in this fashion here, drains were placed between every six rows, and these drains were led into separate main drains so that the water and the wash from each block could be separated. Silt pits 6 ft. x 6 ft. x 6 ft. were dug at the bottom of each main drain. These catch very nearly all the soil washed down and afford a means of measuring the amount of wet wash. By so doing it will be possible to determine any difference in efficiency with the various drain gradients after correcting for the different areas served. In order to prevent wash before the tea has become established, *Crotalaria Muijuici* was planted along the tops of the drains. This will be eliminated when the actual wash experiments are attempted.

(d) *1929 Clearing*.—This year it is intended planting up a small area running along the Government Road. A Ceylon jat of tea is to be attempted. The seed was obtained from Chapelon Estate and the examination and observations on its germination (*q. v.*) would seem to indicate that it will give useful results. The area has received a thorough forking, and has been staked and pitted. It must be observed here that the strata of rocky material is still to be found here, and again extra work has had to be done to remove these rocky portions.

(e) *Old Tea*.—Up to April, 1928, this tea had received its cultivation from Woodbriar and had been plucked by the coolies of that Estate. With the commencement of the new year this tea has come under the routine work of the Station. It was due for pruning in September, 1927, but as little could be done with it then as it had been exposed previously to a rather severe drought, it was decided to leave it till September, 1928, to enable it to give the 400 pounds required by the Lease.

With the exception of the 3 line pruning per month as explained in my previous report and approximately one half of an acre reserved for an experiment in 'Skiffing', all the remainder received an extremely heavy prune in September in an attempt to eliminate as far as practicable all diseased wood. All the pruning cuts received protection with Skenes Wax. Subsequent to this pruning the area received a deep forking in October. During the monsoon it received a number of grass knifings depending upon the growth of weeds.

It was also decided to take advantage of this pruning time to divide this area into appropriate plots averaging approximately 100 bushes per plot. The large number of vacancies in the area made it impossible to obtain uniform plots. Attempts are to be made to supply up these vacancies. These plots have been separated from each other by a narrow trench. From the time of tipping, these plots have been plucked separately and their yield of green leaf noted.

Weakly bushes have been staked and left out of the tipping treatment; the rest have been tipped very lightly to 24 inches.

A portion of approximately one half of an acre was skiffed in order to observe the progress of its growth. The bushes were cut across at approximately their thickest part. The bushes recovered rapidly from this skiff and gave good yields, but as anticipated this did not last long and they soon ran into 'bahjhi' leaf. The necessity for a flushing manuring mixture being applied to skiffed tea is very evident, and this year it is proposed dividing the skiffed area into two parts, one part to receive manure, the other to remain unmanured.

The yields of the Old Tea area from April, 1927, are given in the following table:—

Month.	Year.	Yield in pounds made Tea per acre.
April	... 1928.	40
May	48
June	22
July	34
August	39
September	25
October	7 (Pruned).
November	15
December	10
January	16
February	20
March	13
		289 Total annual yield per acre

(f) *Swamp Land*.—A thorough system of drains has been laid out in the swamp, and red gums planted. This year it is proposed extending the planting up of these gums.

TEA SEED GERMINATION, ETC:—

For the planting up of the slope between the 1927 clearing and the Government Road, and the supplying of older clearings, fresh seeds were obtained, and put out in the Nursery. The germination was studied as in previous years.

As soon as possible after each batch of seeds was obtained, an examination of not less than 100 seeds chosen at random was made, and the remainder put out on germinating beds.

The examination of the seeds was conducted as follows:

- (1) The weight of the 100 seeds was determined.

- (2) The seeds were put into water for about a minute and the number of sinkers and floaters counted.
- (3) The seeds were then cracked, the shell removed and the endosperm separated into the two lobes. All 'starred' seeds, or seeds affected by fungi, insects or caterpillars were sorted out, and counted. The starred seeds were tested with iodine for the presence of fungi and the result noted.

The following procedure was employed for the germination:—

The seeds were placed on a bed of river sand covered with coir matting beneath a pandal, and watered morning and evening. About every three days, each group of seeds was examined and all seeds in which the seed-coat had split and the point of the root was emerging, were removed and placed half-submerged on the surface of the prepared beds or baskets with the root-tip pointing downwards. The number of seeds so removed was noted.

In addition to the jats which were specially required for planting, a record was also kept of the germination of samples of *Dutea* seeds which were sent in to be reported on by two estates.

When germination came to a standstill, the number of seeds remaining was determined and these were all opened and the number of sound seeds remaining counted.

The results are summarised below:—

Jat.	No. per Maund.	% Floaters.	% Bad Seed Originally.	Final % Germination	% Good remaining.	Time G. perfectly finished.	Time G. over
Dhoolia ..	15,000	0	4	96.1	0.5	70 days	120 days
Chapilton ..	19,500	50	7	90.6	2.0	80 "	115 "
Bonaccord ..	20,000	93	11	73.4	2.2	80 "	120 "
Dutea ..		70	20 (8)	67.4	3.0	50 "	80 "
Cherambadi ..	14,000	1	12 (4)	92.7	0.0	40 "	80 "
Dhoolia * S ..		0	13 (8)	96.3	0.0	70 "	90 "
Dhoolia * F ..		100		52.6	1.3	70 "	90 "

The figures in parentheses in the 4th column show the number of seeds which, though starred, were not infected with fungus and which might therefore be expected to germi-

nate. The 7th column shows the time after which germination was very slow and after which there was no practical utility in paying further attention to the seed. The last column shows the time when the seeds were actually removed for examination. The two jats marked with an asterisk will be referred to later as they are concerned in another experiment.

These figures seem to show that a preliminary examination of the seeds will enable the formation of an estimate of the probable percentage germination to be expected, particularly where the percentage of floaters is low. By elimination of the floaters before examining the seeds a fairly accurate estimation might be made of the germination of these sinkers. In considering the above figures it is noteworthy that Chapelton is a Ceylon Jat, and that the Bonaccord seeds were windfalls picked up after the crop proper had been picked, and were kept for some time before being germinated. The Dutea seeds were sent in from an Estate and were no doubt unpacked some days before being tested by us. The Cherambadi seeds were also sent in by an Estate for examination and were undoubtedly amongst the finest seeds which we have reported on.

EXPERIMENT ON TEA SEED.

(1) GERMINATION OF SINKERS AND FLOATERS.

About 600 Dhoolia seeds were left exposed for three weeks and divided into sinkers and floaters at the end of that time. The seeds were then put out to germinate in the usual way. The sinkers germinated to the same extent as the original unexposed seeds but were a little slower in starting and after having started were a little quicker, so that at the end of 70 days the percentage germination was approximately the same. The floaters, however, were much behind the sinkers in germinating power and only about 50 per cent. germinated; the period after which germination ceased was of about the same duration as in the case of the sinkers. It would seem that the drying does not directly kill the seeds but makes them very much more susceptible to attacks of fungus. It is proposed to attempt to prove this theory by treating floaters with a mild fungicide from time to time. (Watering with lime-water may be tried).

A number of Nellimunda Seeds were also exposed for, about three weeks and the germination of these is still pro-

ceeding, and as yet no final figures have been obtained for their germination.

It may be worth noting that the fungus which attacks the seed, and which in some cases covers the outside of the seed-coat, is a white mould which apparently attracts ants. Groups of seed which are afflicted by the fungus seem to be subject to invasion by ants and it has been observed that the tunnels and passages made by the ants through the sand contain a relatively large proportion of the mycelium in their walls.

(2) PREMATURELY GERMINATED SEED.

It was brought to our notice that the seed supplied to a nearby Estate arrived with a very high percentage of the seed germinated, many of the seeds having rootlets up to one and a half inches long, and the majority of these were grotesquely twisted. In answer to the obvious complaint, the suppliers stated that if the twisted rootlets were nipped off, the plant would still develop. A trial was made of this. It was found that the plants did indeed grow, putting out an apparently normal shoot but the roots were not very firmly fixed and on pulling up the plants it was found that there was no tap-root but that as many as five or six vigorous lateral roots had been formed. The plants were therefore capable of vigorous growth in the Nursery but it remains to be seen whether they will continue to thrive after being planted out. At the same time a number of seeds were planted with distorted roots complete. These also grew. Here a number of small down-growing rootlets were found without there being any well defined tap root. In one case there appeared to be a tap root which had sprung from the lowest part of one of the bends. These plants will also be planted out in due course for further observation.

(3) IMMATURE SEEDS.

It was observed when batches of seeds were being split open that in many instances it was difficult to see the line of demarcation between the two lobes of the endosperm, and it was thought possible that such seeds might be immature. A number of these seeds were allowed to germinate and their germination compared with a similar number of normal seeds. Both in their germination and in subsequent growth no difference was observable, which suggests that this theory was abortive. Owing to the seed-coat having been removed

and the possibility that these two types of seeds have different capabilities for splitting this coat, no definite conclusion can be reached either one way or the other.

Many complaints have again been received this year with regard to the Germination of Tea Seed. To a certain extent the delay in the transport of the seed from North India as a result of damage on the railroads caused by heavy rains experienced towards the end of the South-West Monsoon, is responsible for such complaints. At the same time the abnormal condition of young plants cannot be attributed to the vital part of the seed but to the seed-coat and I would like to give further emphasis to my recommendation given in the Annual Report for 1927-28. I have during this year's touring been asked to inspect Nurseries which have not been satisfactory as a result of twisted roots and stems, and I am still convinced that assisting the opening up of the seed by completing the crack would be attended by very definite advantages and by the reduction of twisted stems and roots (the former in particular) to a minimum. The one objection stated against this is the extra labour required in a Nursery, but the work could be done by women or podians, and the slight extra expense would be well repaid. It might be added here that further corroboration of my observation on the benefits derived by assisting the seed to crack completely has been given in the Annual Report of the Tea Research Institute of Ceylon.

METEOROLOGICAL OBSERVATIONS:—

The following table gives the average monthly Meteorological readings taken on this Station.

Month.	Year.	Rainfall in inch	Days with rain.	Tempo- rature of.		Humidity per cent.		Vap. Pres.		Clouds.
				Mini- mum.	Maxi- mum.	8-30 a. m.	3 p. m.	8-30 p. m.	3 p. m.	
April	1928	4'40	11	65'2	87'5	85'8	88'4	33'3	34'9	4'7
May	"	3'68	11	66'8	84'9	79'5	64'8	33'3	33'8	3'0
June	"	13'21	24	65'4	74'9	88'7	87'1	34'0	33'1	7'9
July	"	20'88	30	65'1	73'6	90'7	86'5	31'0	32'6	8'1
August	"	31'84	30	64'3	73'7	91'8	89'0	30'6	31'4	8'6
September	"	2'74	17	61'7	77'6	85'3	73'8	30'0	33'4	4'3
October	"	8'39	23	63'6	78'1	87'5	91'2	31'3	32'3	6'3
November	"	2'33	9	63'0	76'6	89'4	73'1	30'5	30'5	4'1
December	"	0'28	5	60'9	76'0	87'7	63'5	18'7	17'8	4'5
January	1929	0'23	3	58'3	79'6	84'4	45'4	17'1	14'9	3'3
February	"	0'23	3	60'6	82'0	87'7	49'0	18'9	16'9	3'1
March	"	0'06	3	61'7	86'4	78'6	38'7	19'3	14'9	2'5

It will be observed from the above figures that the South-West Monsoon was prolonged until the end of August, only one day in August being free from rain. The length of the monsoon was, however, compensated for by the intensity of the monsoon, and one of its features has been its comparative mildness. This is particularly applicable to the month of June, during which there were 24 days of rain with a total of only 12.21 inches.

The rains received during the North-East Monsoon offer a direct contrast to those of the previous year. An average of about 20 cents per month were obtained this year as compared with the phenomenal rain of February and March of last year. The variation in the rainfall during the North-East rains of the two years has been reflected in the crops, March, April, May of 1928, producing almost record crops with a falling off after this period of heavy productivity. This year has, on the other hand, been characterised by the very slow recovery from the drought and yields only commenced coming in towards the end of April, but it would seem that these yields will be maintained.

The drought experienced this year is worthy of note. The year ending 1927 was one of the worst droughts experienced from the standpoint of duration. From the aspect, however, of intensity of drought judged from the figures available for humidity, the drought experienced this year has been worst than that of 1927. The worst month for intensity of drought was undoubtedly March of this year, and its effect has been reflected in the poor growth of young clearings, which after withstanding normal dryness during the preceding months were finally subjected to particularly intense drought during March.

From the 1st of August 1928, readings were taken from thermometers situated in a Stevenson's screen. Previously these thermometers had been placed on the Office Verandah. This alteration in site seems to have resulted in an apparent lowering of both the Maximum and Minimum temperatures recorded. It is improbable, however, that this would materially affect the humidity and vapour pressure comparisons to any great extent, as these are calculated from the difference in the readings of the wet and dry bulbs and vary

only slightly with small differences in the absolute reading of the dry bulb. Moreover the dry bulb would if anything be lower in the Stevenson Screen than on the Verandah and this would cause an increase in the humidity and Vapour Pressure results. This was not the direction in which the difference in these climatic conditions from previous observation was found to take place.

SOIL TEMPERATURES AND SOIL MOISTURE OBSERVATIONS.

Since January 1929, observations have been made twice daily of the soil temperatures at depths of 0, 3, 6 and 12 inches, with a view to obtaining information regarding the daily and seasonal variations in these temperatures throughout the year. From time to time the percentage moisture in the soil at these depths has been determined.

The site chosen for this work is on the edge of the 1927 clearing near the Stevenson Screen. The thermometers are placed in vertical glass tubes and are sunk into the soil so that the bulb of the thermometer is at the required level.

The figures obtained are such as might be expected but at the same time they give clearer definition to previous conceptions of the changes they indicate, and from them interesting comparisons may be made. The following are typical daily records and serve to illustrate the changes which may be followed by this means.

SOIL TEMPERATURES.

Date.	4-1-29.	5-1-29.	27-1-29.	28-1-29.	8-2-29.	29-2-29.	24-2-29.
8-30 A.M. Surface.	73.0	81	79	73.5	77.5	68.5	81.5
3"	67.5	66	75	74.0	73.0	72.0	75.5
6"	70.5	69.5	76	77.0	76.0	75.0	78.5
12"	73.5	73	77	77.5	76.5	76.0	79.0
3 P.M. Surface ..	110	110	116	101	104	95	119
3"	81	80.5	90.5	89.5	85	83	91
6"	76.5	75.0	80.5	81	78	77	80
12"	73.0	72.5	77.5	77	76	76	79

Date,	25-2-29.	7-3-29.	8-3-29.	27-3-29.	28-3-29.
8-30 a.m. Surface.	78.5	94.0	96.0	93.0	93.0
3"	74.0	74.5	75.5	80.0	80.5
6"	78.5	79.0	79.5	83.0	83.5
12"	79.0	79.5	79.5	83.4	83.5
3 p.m. Surface.	120.0	115.0	117.0	119.0	113.0
3"	91.0	92.5	93.0	96.0	97.5
6"	81.0	81.0	81.5	85.5	86.0
12"	79.5	79.5	79.5	83.0	83.5

SOIL MOISTURE.

Date,	3-1-29.	31-1-29.	18-2-29.	31-3-29.
Surface.	0.7	2.1	0.35	0.4
3"	15.0	11.8	9.10	3.4
6"	17.4	15.0	13.10	9.1
12"	17.3	17.0	15.5	13.8

The highest temperature at the surface of the soil so far recorded was 127° F., and that 12 ins. was 84° F. It is interesting to note that in North-East India the highest average monthly value for the readings at 12 ins., calculated over four years was 86.6. This figure was obtained for the month of July, which is also one of the months receiving the heaviest rainfall during the years. The conditions in North East India thus give the maximum soil temperatures with a maximum soil moisture content, thus explaining the strong flushing capacity of the bushes during the rain months. In South India this year we have had the maximum soil temperature during March combined with the minimum soil moisture content, a state of affairs which easily explain the lack of vitality in young clearings and the longer period required for the older bushes to regain their flushing capabilities.

Later it is hoped to be able to obtain similar figures to show the variation of the temperature and moisture contents under varying conditions of shade,—old tea, Green Manures and cover crops. Such data would throw much

light on the questions of shade, i.e., the optimum distance for its planting and its best height, the advisability of planting green manures as a temporary shade for young tea, and the effect of time of pruning on these soil conditions.

PESTS AND DISEASES DURING 1928-29.

(1) PESTS:—

(a) *Shot Hole Borer*.—During the year under review, notice has been received of the presence of a Borer found in two districts—Central Travancore and Manantoddy. Specimens sent in for identification indicated that this Borer showed all the characteristics of Shot Hole Borer, though it is stated that the galleries and tunnels are not as large as those caused by Shot Hole Borer in Ceylon. Shot Hole Borer was first reported in South India by Mr. Anstead.

In Ceylon as the result of much experiment it would appear that the main, in fact practically the only, means of combating Shot Hole Borer is intensive manuring. Experiments with regard to the effect of manures on Shot Hole Borer produced the following results:—

1. Vigour of growth of bush is increased.
2. More rapid healing of galleries promoted.
3. Control plot (i.e., unmanured) was not attacked to any greater extent than the treated plot.
4. Application of manures makes bushes neither more nor less attractive to Shot Hole Borer.

Apart from the invaluable assistance given to the bushes to their attempt to produce flush and wood, manuring does not appear to have any actual influence on the presence or absence of the beetle. On Estates where it would be impossible to take drastic measures owing to the immensity of the attack, one is forced to resort to manuring as a means of lessening the effect of the pest.

In the case, however, of Estates showing only sporadic attacks of the pest, I am of the opinion that manuring should be supported by a more aggressive campaign, viz., the destruction of the beetle as far as possible. This destruction would also tend to reduce the spreading properties of the beetle to a minimum. This should be commenced at the time of the pruning; all infected branches should be eliminated and burnt.

even if this means collar pruning. Collar pruning in *Helo-peltis* stricken areas should naturally be recommended with caution owing to the difficulty experienced by such bushes in coming in again after pruning, but the advantages in eliminating Shot Hole Borer would easily compensate for the time taken for the bushes to come into plucking again. The collar pruned bushes should be treated very lightly with regard to tipping, etc.

Prunings on the affected areas should be burnt as soon as possible after pruning, aided if necessary by the application of Kerosene. It has been observed by Speyer, that *Xyleborus* is capable of proceeding quite normally through the various stages in its life History on prunings, and it is possible for a fresh brood of the beetles to re-infect the prunings. Propagation, therefore, is not held up and the beetles are then capable of attacking the bushes again in larger numbers.

To summarise the suggestions for fields with attacks of Shot Hole Borer commencing:—

1. At pruning time, prune off all branches affected by Shot Hole Borer,—if necessary, Collar Prune.
2. Burn all prunings rigorously.
3. Apply manure, especially if it has been found necessary to resort to collar pruning.

This latter suggestion is the most important and should receive careful attention.

(b) *Tea Aphis*.—Further correspondence has been received with regard to this pest. I have already given the remedial measures on pages 11 and 12 of my Annual Report for 1927-28.

(c) *Tea Tortrix*.—This pest still appears to be causing anxiety among certain Planters. Specimens received in the Laboratory indicate that though it is a Tortrix, that it differs somewhat in size from that found in Ceylon. The most important peculiarity of the Tortrix found in South India is that no Egg masses can be found actually on the Tea. This limits the methods of controlling the pest to the removal of the affected buds. It is felt that a study of the Tortrix found in South India would be well worth while, and it is hoped that steps in this direction will be taken during the coming year.

(d) *Red Spider*.—This insect is still a serious pest on high elevation Estates during the hot weather. The fact that it is usually eliminated after the first downpour of rain tends to make one neglectful of its presence. On Estates, badly attacked, however, measures should be adopted to reduce the damage caused by it. An effective means of doing so is the dusting of the bushes with a mixture of powdered Sulphur and lime.

(e) *Eelworm*.—The damage caused by this Nursery pest is still very evident from the number of enquiries obtained concerning it. It is necessary to remember that the Eelworm is an internal parasite and once young plants have been attacked and show signs of drooping and non-development, no measures taken will cause such plants to recover. The only means at our disposal is to prevent the spread of the pest. In this connection conditions which encourage the pest are weeds and water logged soils.

The measures against Eelworm usually recommended are:—

1. Pull up and burn all plants in beds showing infection.
2. Remove any weeds.
3. Drain the Nursery thoroughly.
4. Incorporate lime with soil in the remainder of the Nursery.
5. Isolate healthy beds by digging a trench as deep as practical and a convenient width, *c.g.*, 6 ins. This trench might receive lime.

FUNGOID DISEASES.

(1) (a) *Root Diseases*.—Investigation on Root Diseases are still being carried out by various Scientific Departments, in particular, the Ceylon Tea Research Institute. Much of value has been determined with regard to the peculiarities of these diseases but no definite measures of combating the disease have been recorded, especially from the standpoint of the disinfection of the soil. The disinfectant usually recommended is lime, but results attendant upon its use have not been satisfactory. In 1927, therefore, experiments on Estates were commenced with the use of Sulphate of Iron. The commencement of the experiments were reported in previous annual report, but with the lack of any

evidence in favour of the use of Sulphate of Iron, no details were given. Encouraging reports have been received, however, from the High Range and the Nilgiris and it would seem opportune at this stage to give details of the procedure recommended against Root Rots with the use of Sulphate of Iron as the soil disinfectant.

The general procedures adopted in controlling Root Diseases consist of isolation of diseased area, removal of the dead bush or bushes, burning and disinfection of the soil.

(b) *Isolation.*—This is usually done by means of trenches. The trench is dug to include a row or number of rows of healthy bushes. Theoretically such isolation trenching should have a definite effect in preventing the spread of the disease, but it is essential to dig them deep, and keep them clean in order to prevent contact being made by some material, e.g., roots, between the affected and non-affected areas. Another disadvantage is that it is just possible that the trench would not include all the diseased bushes, and one such bush left outside the trench would be sufficient to vitiate at least partially the benefits to be derived from such trenching. The keeping of the trench clean also represents a difficulty under Estate conditions.

An alternative to this method of isolation by trenches may be the abandonment of a number of rows of healthy bushes. Observations made in the High Range seem to show that the abandonment of bushes enables them to show a greater resistance to the disease, and an indirect result of such abandonment would be the formation of healthy, re-invigorated bushes. In the meantime, disinfection of the soil on which these abandoned bushes are situated would tend to diminish the attack of the disease so that when these abandoned bushes are once again brought into pruning and plucking they are much more capable of withstanding the advances of the fungus. The abandonment of bushes presents no practical difficulty, and the only disadvantage would be a slight loss in crop—almost negligible however.

The pruning of bushes around affected areas has been carried out on certain Estates as a means of providing material for assisting in the burning of the diseased bushes. There is very little in favour of this method, as the pruning immediately causes a loss in resistance to the disease, owing

to the temporary inhibition of growth as a result of the loss of the feeding rootlets caused by pruning.

(2) *Removal of Dead Bushes.*—It is essential when removing dead bushes that all the root system be eliminated from the soil. Incomplete measures adopted in removing dead bushes mean a definite loss in the efficiency of the remedial measures. Probably the best method of dealing with dead bushes is by the use of a Monkey Jack. Admitted that in some cases the roots might crack off, yet in the majority of cases the whole main root system is removed, in toto. On Estates where Root Rot patches are very much in evidence, the use of the Monkey Jack is to be recommended, even though it is a rather more expensive method. This expense is compensated for by the increased efficiency. On Estates troubled only with sporadic attacks of Root Rot, *i.e.*, an isolated bush dying out, the expenditure on a Monkey Jack would probably not be warranted.

(3) *Burning.*—In order to destroy the spores and mycelium of the particular Root Rot, the uprooted bush must be burnt. Probably the soundest method would be to burn the bush in a pit made on the spot from which the bush has been removed, as this would act as a means of partially sterilising the soil and prevent spreading the disease which might be brought about by carrying the bush away. The danger, however of damaging the surrounding bushes often prevents this being done, and it is necessary then to take the diseased bush to the nearest patch of jungle and burn it there. On Estates with large patches vacant as the result of Root Rot a large pit might be dug in the centre of the patch and the diseased bushes burned in this pit.

An accessory measure against the spread of the disease during the carrying away of the dead bushes, is the removal of the soil from the roots of the bush and scorching these roots by means of a strong Blow Lamp.

(4) *Disinfection of the Soil.*—The usual agent recommended for the disinfection of the soil is Lime. The use of Lime is advocated as it produces an alkaline reaction in the soil in which certain fungi are supposed to be unable to develop.

The disadvantages of the use of Lime as applied to the disinfection of soil, bearing Tea, are as follows:—

(a) Lime in quantities requisite for disinfection produces an alkaline reaction in the soil. Such a reaction is detrimental to the most vigorous growth of Tea. (See I. T. A. Quarterly Journal 1925, and Ceylon Research Institute's Quarterly Journal 1928).

(b) Lime is only soluble to a small extent and hence distribution throughout the infected soil is difficult.

(c) Effect of Lime is only temporary. Lime, unless in a pure state, is practically devoid of fungicidal properties ('Micro-organisms' by Jorgensen). Deterioration of Lime takes place at a very rapid rate when in contact with the ordinary atmosphere as a result of the latter's content of Carbon dioxide. This deterioration would take place much more rapidly in the case of lime applied to the soil, as the lime would be in a contact with the soil atmosphere containing relatively large quantities of Carbon Dioxide.

(d) The presence of Lime in a soil does not necessarily inhibit the activity of a fungus. This has been shown by experiments carried out in Ceylon. (See Ceylon Tea Research Institute Annual Report, 1928).

It becomes evident therefore, that the use of lime as a disinfectant does not come up to expectation. It was necessary to find some agent which would not labour under the disadvantages of Lime, and which at the same time would compare favourably with lime from the standpoints of fungicidal efficiency and economics. Such an Agent, which suggested itself, was Sulphate of Iron (Ferrous), which may be obtained under the commercial name of Green Copperas.

Evidences of the fungicidal properties of Sulphate of Iron are as follows:—

1. 'Spraying of Plants,' By Lodeman, Page 235. 'It has been estimated that the germination of spores of certain fungi may be prevented by solutions of Lime containing 1 part to 10,000 of the liquid; or Iron Sulphate, 1 part to 100,000 of water'.

2. 'Watt and Mann', Page 415. This gives the attempt to apply Sulphate of Iron as a control measure against internal Root Rot (*Diplodia*). 'Mr. C. T. Dunlop

very kindly recently carried out, at Dr. Butler's suggestion, an experiment in which the roots of the affected bushes were opened in February, and the soil and roots were watered with a two per cent. solution of Sulphate of Iron (Ferrous Sulphate). Though bushes were dying all round and the bushes treated were already affected, none have died since which were then treated. The experiment was on too small a scale to be very certain of the result, but a further test on a larger area is to be carried out in the next year'. No evidence of these experiments on a larger scale is available.

The advantages, therefore, which may be claimed for Sulphate of Iron as a soil disinfectant, are as follows:—

1. It has definite fungicidal properties (see above).
2. It is easily soluble in water and hence it is comparatively easily distributed through an affected area.
3. It has a neutral action—hence it has no detrimental effect in a soil already normal for the best growth of Tea.
4. It has been suggested as a manure for quality in Tea. Thus on Page 160 of 'Watt & Mann,' it is stated:—'Various other more or less rare salts have been suggested as additions to Tea. Sulphate of Iron and Sulphate of Manganese have been suggested as manures for quality in Ceylon'.
5. It is comparatively inexpensive. The following figures were supplied to me by the Manager of Guderal Estate, and indicates approximately the cost of treatment on an Estate where transport charges are severe:—

Rupees 4-8-0 per cwt. F. O. R. Madras quoted by Messrs. Parry & Co., Ltd., Madras.

	Rs.	A.	P.
2½ Tons obtained F. O. R. Madras	225	0	0
Trainage Madras/Bodi	62	14	0
Transport Bodi/Madupatti	23	0	0
Transport Madupatty to Estate	10	0	0
Application	42	8	0
Total	363	6	0

The area treated with Sulphate of Iron was 60 acres. The cost of treatment was, therefore, approximately 6 Rupees per acre.

It is advisable to safeguard against the accumulation of Sulphate of Iron in the soil, and in order to do this the treatment is done just prior to the Monsoon rains. This procedure also tends to distribute the fungicidal agency throughout the affected area.

Before proceeding to detail the actual treatment I should like to stress the necessity for shade. Invariably the worst patches of Root Rot are to be found on unshaded areas. The disease would appear to be most virulent at the end of the hot weather, and just after the first few showers in April. The bushes are in a comparatively very weak state as a result of the dry weather, and their vitality is probably at its lowest. The disease is probably also comparatively at rest during the hot weather. The sudden change to moist conditions gives an impetus to the fungus to develop, and the bushes which are unable to respond as rapidly as the fungus to the moisture in the soil, are promptly attacked. The presence of shade would minimise the effect of the dry weather, and permit the bushes to maintain a large amount of their normal energy and there would be no weak period during which the fungus could attack them. Shade in areas attacked by Root disease should be a first consideration.

The method suggested for the control of Root Rots is, therefore, as follows:—

I. PRELIMINARY TREATMENT:—

- (a) The diseased area must be first of all isolated. If this area is small and trenching represents no difficulty, the isolation should be done by means of a trench as deep as possible, the minimum being 2 feet depth. This trench should include a number of rows of healthy or apparently healthy bushes, which should be left out of the usual plucking rounds. The soil from the trench should be thrown inside the diseased area. If the area affected is such that the trench is impracticable, it should be omitted, but the abandonment of surrounding bushes carried out. It is advisable, if practicable, to keep all imple-

ments used for the work inside the affected area separate from those used on other parts of the Estate, as these may carry the disease to healthy areas.

- (b) The dead and diseased bushes must be dug out completely including as much of the root system as possible. On a large scale this is best done by means of a Monkey Jack. The soil adhering to the Roots should be removed, and the Roots scorched by means of a blow lamp.
- (c) If a large patch is affected, a pit should be dug in the centre of the patch and the dead and diseased bushes together with as much of the roots and woody material, such as dead twigs, leaves, etc., lying around should be thrown into this pit and burnt. If the bush is not dry enough to be burnt immediately, it should at least be scorched after uprooting by heaping dead twigs and leaves around its roots and setting fire to these. Kerosene should be used if necessary and funds permit.

II. DISINFECTION TREATMENT:—

Having eliminated as far as practicable all diseased wood, it is necessary to consider the best means of disinfecting the soil, in order to leave it in a condition satisfactory for planting up purposes.

If the number of dead bushes is very limited, the position from which the bush has been removed should be pitted, and the soil left exposed for a convenient period. The soil is then replaced loosely in the pit, and the pit saturated with a $2\frac{1}{2}$ per cent. solution of Sulphate of Iron, i.e., $2\frac{1}{2}$ pounds Sulphate of Iron in 10 gallons of water, or to make it more practical 1 pound in kerosene tin of Water. The affected area itself together with the area of abandoned Tea should be sprinkled with the Sulphate of Iron crystals at the rate of 5 hundredweights per acre, and the area receive repeated forking. If trenches are present, these should receive a sprinkling with the fungicidal agent. The holes of the abandoned Tea should receive a watering with the solution.

On widely affected areas this saturation is impracticable, and only the application of the Sulphate of Iron in the crys-

tal form should be made. 4—6 ounces of the crystals per vacancy or bush are taken and sprinkled in the affected area and forked in thoroughly, this treatment also applying to the abandoned tea.

A repetition of the above treatment one year later would be an advantage.

III. SUPPLYING:—

Supplying is inadvisable up to 2 years from the time the soil received the first treatment. To plant up too rapidly often means a large loss of plants, and the delaying of such supplying would give the soil a better opportunity of throwing off the disease. Healthy Basket Plants should be utilized for this purpose, as they carry with them a certain amount of unaffected soil.

IV. MANURING:—

Everything tending to increase the vitality of the young supplies should be done and in this connection a small application of manure would be of immense value. Cattle manure, alone, where available, would be the most advantageous, supplying as it does easily decomposable organic matter. If such is not available the manurial mixture applied should be calculated, not to increase leaf formation, but mainly to stimulate the production of a healthy and vigorous root system. The mixture should therefore be of a comparatively slow acting variety, and contain readily available Phosphate in excess of Potash and Nitrogen. The inclusion of Sulphate of Iron in the mixture would be an advantage; it could be mixed with most manures except Superphosphates or Rock Phosphates.

V. SHADE:—

On large patches affected by Root Rot, before supplying up, attempts should be made to plant shade.

STEM DISEASES.

The two stem diseases causing most trouble at present are *Corticium Salmonicolor* and *Nectria Cinnabarina*. Serious damage has been done by them in Central Travancore. The measures adopted against these diseases are identical. The following paragraphs give some observations made and their relation to the control of these diseases:—

- From observations made on the stems, and the position of the diseased portions, there cannot be any doubt that the

active agent in producing the diseased condition of the stems on certain Estates in Central Travancore is *Helopeltis*. This insect may cause the infection of the stem either directly by carrying the spores on its proboscis and inserting the spore into the young twigs, or indirectly by leaving a place for the entry of the disease at those places on the twig which it has bitten. Another possibility is that the spores may be present on the body of the *Helopeltis* insect and these may be washed to a weak point in the stem caused by mechanical injury, etc., and an entry be gained at this point. However, there cannot be any doubt but that the bites of *Helopeltis* are responsible for the condition of the bushes, for on abandoning the bushes, no further signs of the disease were found below the original points of infection—in the opinion of the writer, a most important observation in relation to the eradication of the disease.

The bushes after pruning had sent up normal shoots which had been bitten by *Helopeltis*. The shoot was capable of resisting the disease until the bushes had been tipped and consequently weakened. The disease had then obtained the upper hand and the stem had ceased to grow. To compensate for this the bush had sent out more shoots from below, which had been attacked in turn before they could produce good wood. The result was that even as soon after pruning as tipping time, bushes badly attacked represented a matted mass of thin, spindly, dead or dying twigs, with one or two green shoots still remaining. Dark leaved bushes were found to be most affected in this manner, and this fact adds corroboratory evidence to the observation made above that *Helopeltis* is the primary cause of the appearance of *Corticium Salmonicolor*, and *Nectria Cinnabarina* because it is well known that dark leaved bushes suffer more than light leaved bushes from attacks of *Helopeltis*. Still further proof of this is to be found in the fact that at present with attacks of *Helopeltis* being at a minimum, fresh healthy shoots are being produced which are free of *Helopeltis* bites and of the fungus.

Another important observation made was, that apparently perfectly healthy bushes, which were flushing well, were by no means free from the fungus. Superficially one would,

have passed them as unattacked but on examining the interior of these bushes and in particular the wood lower down, a considerable portion of the wood was found to be discoloured, and probably the most striking specimen of the disease was obtained from one of these superficially healthy bushes. This is important in that it calls for immediate attention being paid to the healthy tea on all Estates, and the presence or absence of the disease being noted. It is imperative that this disease be treated in the early stages as it will prevent much loss both in crop and in the vigour of the bushes, and would mean a saving in expenditure on control measures.

It was evident that bushes badly attacked by the fungus were useless from the vital standpoint of crop production, and that they might be abandoned without any loss in crop. Some bushes on an Estate in Central Travancore had been abandoned, possibly for this reason, and these were examined. It was found that growth was slow but that any wood produced was extremely good, and most important of all that the diseased portions were well above the 24 inches mark, leaving the lower wood almost, if not entirely, free from fungus attacks. This represents an extremely important fact in relation to the control of the disease and the treatment of badly affected bushes, as there should be no difficulty in cutting out all the diseased wood by pruning to 24 inches. Following up this pruning with the systematic and rigorous burning of all prunings should leave the bushes free from the disease, or eliminate it to such an extent that repeating the cutting out of the diseased wood would leave the bushes in a healthy condition. Pruning of these abandoned bushes should not be done lower than 24 inches unless a portion of affected stem is present below this height; as a result of this light prune the bushes will tend to come in more rapidly and vigorously, and be capable of repelling the attacks of *Helopeltis* to a greater extent. This treatment should be supported by intensive cultivation, i.e., forking and manuring.

For complete eradication of the fungus it is of vital importance that the spores of the fungi concerned and any residual mycelium be destroyed. For this purpose, spraying with a suitable fungicide must be carried out. There are two spray fluids in general use—viz., Bordeaux and

Lime Sulphur solution. The advantage of Bordeaux Mixture is due to the presence of copper, claimed to be the element with the highest fungicidal properties. The disadvantages of Bordeaux are due to the solid particles which make the spraying difficult owing to the clogging of the nozzles of the spraying machine. Lime Sulphur solution is a clear liquid and hence could be sprayed with greater ease and with less damage to the nozzles. Its fungicidal properties are not so high as that of Bordeaux Mixture, but it has been utilized by the Mycologist at Tocklai against *Corticium* spp. with successful results (*See Indian Tea Association Scientific Quarterly*, 1925, Part II, Page 56). It is also possible that spraying with Lime Sulphur solution would be cheaper than with Bordeaux Mixture.

It has already been stated that this disease is, without question, a secondary attack resulting from the depredations of *Helopeltis*. It follows that any measure tending to reduce the intensity of the attacks of *Helopeltis*, would assist the bushes to develop much more vigorously. This applies especially to fields badly attacked by *Helopeltis*.

Lime Sulphur also having insecticidal properties, a second spraying just prior to the tipping, or when attacks of *Helopeltis* are on the increase, would tend to alleviate these attacks and at the same time would reduce the possibility of infection from fungus spores to a minimum.

The foregoing suggestions are all made as direct measures of eliminating the fungus, and it is now necessary to consider the indirect methods viz., assisting the bushes themselves to throw off the attacks of the fungus by increasing their growth and flushing capacities, and in particular, their capability of producing healthy wood. These desirable qualities are to be obtained by

1. Soil Cultivation.
2. Easy Treatment.
3. Appropriate Manuring.

Soil Cultivation.—The value of soil cultivation cannot be underrated in this connection. The results obtained from thorough cultivation have been so marked that it is now becoming part and parcel of the annual routine work on most Estates.

Drainage is a further aspect which requires attention on infected areas, and on particularly bad areas suggestive of pan formation having taken place, a system of honeycomb trenches as suggested in my Booklet on the 'Principles of Tea Manuring', Page 49, might be well worth while.

The question of easy treatment on the diseased fields is of paramount importance; on badly diseased portions after pruning, tipping might be done to a full three leaves in place of the usual method of tipping to two leaves. Plucking consequent on the tipping should be to a full leaf, any immature flush being left severely alone. Pruning should be done as lightly as possible compatible of course with the elimination of diseased wood.

Appropriate manuring of diseased fields is an aspect which I think requires extremely careful attention, bearing in mind the various principles of Tea Manuring, and the modifications of these principles required when formulating manuring programmes for diseased areas. At present manuring programmes are invariably applicable to practically every Estate of a company irrespective of their condition, *i.e.*, diseased or healthy. I feel that this should be modified to give manuring programmes more appropriate to the condition of the Tea; further, apart from disease it must be remembered that soil conditions are by no means static, but dynamic processes take place resulting in variations in soil which necessitate continual attention being paid to manuring programmes and requisite modifications being made.

The manuring of diseased fields should aim at assisting wood formation. The plant food claimed to cause this is Potash, and hence Potassium salts should represent one of the main ingredients of a Pruning Mixture. General Mixtures intended for use after pruning mixtures and to assist the bushes to produce flush should not be too forcing.

To recapitulate measures which might be adopted against these diseases:—

1. **FIELDS BADLY ATTACKED BY DISEASE:—**

(i) *Before Pruning Time:—*

- (a) Abandon all bushes incapable of flushing—this might necessitate whole areas being abandoned.
- (b) Bushes left, to be plucked exceedingly lightly.

(ii) *At Pruning Time:—*

- (a) Prune below diseased wood.
- (b) Burn all prunings.
- (c) Spray with Bordeaux Mixture or Lime Sulphur solution.
- (d) Deep fork.
- (e) *Apply Pruning Mixture with Potash in excess.
- (f) Tip to three leaves, and if practicable, give a further application of fungicidal spray solution.
- (g) Stems with any further signs of disease to be removed immediately, and burnt, and affected bushes sprayed.
- (h) Improve drainage.

(iii) *When in Plucking:—*

- (a) Pluck lightly, avoiding immature flush.
- (b) Apply general mixture,—6 months or preferably 12 months after application of the pruning mixture.
- (c) Apply further general mixture 12 months after previous application of general mixture.

(iv) *Abandoned Bushes:—*

- (a) Leave in abandoned state till the diseased portions have been carried well above 24 inches above ground level and healthy wood developed.
- (b) Prune to 24 inches.
- (c) Burn all prunings.
- (d) Spray bushes.
- (e) Treat very lightly with respect to tipping and plucking.
- (f) Arrange pruning to coincide approximately with a manuring period, the abandoned bushes receiving a rather heavier application.

2. *FIELDS WITH SPORADIC ATTACKS OF THE DISEASE:—*

- (a) Abandon very weakly bushes and treat as in 1 (iv).
- (b) At pruning time, prune off all diseased wood and burn.
- (c) Spray with fungicidal solution.
- (d) Deep fork.
- (e) Apply pruning mixture.
- (f) Apply general mixtures.
- (g) Eliminate any further signs of diseased wood.
- (h) Improve drainage.

ARTIFICIAL FARMYARD MANURE.

A number of enquiries have been received recently concerning the advisability of preparing Artificial Farmyard Manure on Estates. Although cattle manure is one of the finest tonics for young tea, from a consideration of the cost of production of its artificial counterpart it would seem evident that the expense of making synthetic farmyard manure is in excess of the value of the product.

Numerous experiments have been made in the past at Agricultural Experimental Farms and on certain Tea Estates and the results of some of these have been reported on by Mr. Munro in the "Planters' Chronicle" (1926, p. 626).

There are two possible systems, the pit system and the heap system. In both, the green material is spread in layers about a foot deep and a starter such as Calcium Cyanamide is sprinkled over it, another layer is put on and then more starter is added, and so on. The whole is then watered with from 100—150 gallons per ton of green material. It is subsequently watered daily at the rate of about 10 gallons per ton per day during dry weather. Results showed that careful attention to the amount of water added and the duration of the experiment was necessary. On the whole the pit system was distinctly the more satisfactory, but even so the loss of nitrogen (comparing the total amount of Nitrogen present at the beginning with the total amount of Nitrogen end of the experiment) varied between 20 and 50 per cent. This Nitrogen escaped into the air as ammonia or was lost by seepage.

The lowest cost of production of the manure was Rs. 10 per ton. Valuing the manure on the same basis as Ground Nut Poonac containing 7 per cent. Nitrogen and costing Rs. 120 per ton, it would be necessary for the final manure to contain 2.5 per cent. Nitrogen (calculated on dry matter) to be economically competitive. Actually in one case the Nitrogen content was over 3 per cent. and hence the cost of production was justified. On the other hand in other experiments worked on only slightly different lines the cost rose to as much as Rs. 17 per ton, and the percentage of Nitrogen in the product was only about 1 per cent. It is extremely doubtful whether under Estate conditions the relation between the cost of production and the value of the manure

produced is so great. Even assuming that the actual manufacture of the synthetic manure is successful from this point of view there remains the fact that transport charges from the site of the pit to the field would be quite 7 times the amount which would be expended on an equivalent amount of Ground-Nut Poonac (as far as Nitrogen content is concerned) since the artificial farmyard manure contain at most 30 per cent. of dry matter and of this only 2 to 3 per cent. at most is Nitrogen, whereas Ground Nut Poonac contains 7 per cent. of Nitrogen independently of moisture.

It is true that the synthetic manure has a certain value by reason of its bulk alone which is not taken into account in these computations. I suggest, however, an alternative which I think has the virtue of being of the same order of expense and far more efficient, giving at a less cost both the effects of the Nitrogen content and the bulk.

I suggest that the tea which is to be treated should be trenched, green material carried in, and put in the trenches. A certain amount of starter is added and the whole might then be left alone. By so doing, one gets the advantages of trenching and at the same time the whole manurial value of the green material, as the Tea could make use of the food essentials present as soon as they become available.

Alternative lines could be trenched at a cost of Rs. 25 per acre, except under conditions where trenching is impracticable owing to the presence of rocks, etc., and where, of course, these proposals would not apply. The cost of transporting green material is a variable quantity but would probably amount to less than transport to a pit and again from the pit to the field. For a starter probably an ounce of Calcium Cyanamide to every 4 feet along the trench would be sufficient and this would cost approximately Rs. 6-8-0 per acre. These are the main costs.

Since an application of 5 tons per acre is the least amount of Artificial Farmyard Manure which could be considered useful, and since this would cost at least Rs. 65 per acre including application, it is evident that Rs. 30 per acre could be spent on the transport of jungle to the trenches before this system became the more expensive, and for this expenditure a very considerable amount of green material could be distributed. At the same time better results might be expected.

For these reasons I consider that the system I propose would be a far more sound proposition than the separate manufacture of Farmyard Manure. Run on these lines, I think that such treatment would be highly beneficial to Tea growing on poor soil.

The most suitable time for work such as this would be between the end of March and the beginning of South-West Monsoon as it is then that the soil is not as a rule too hard to permit of trenching and the trenches would not cause too serious drying out of the soil. At the same time the rain would accelerate the decomposition of the green material.

LABORATORY WORK:—

(a) *Tannin*.—The constituent of Tea which is the most important in manufacture is recognized as Tannin. Work on Tannin at present invariably consists of attempts to prepare pure Tea Tannin, or endeavours to determine changes in Tannin Contents due to climatic conditions, various methods of manufacture and so on. The preparation of pure Tea Tannin is an extremely tedious and expensive one; experiments carried out to determine changes in Tannin always labour under the difficulty due to the lack of knowledge of the fundamental constitution of Tea Tannin. Work at present being carried on in this Laboratory aims at obtaining some insight into the constitution of Tea Tannin, and at the determination of a satisfactory method for its estimation. The application of the results to manufacture will follow, and it is hoped to carry out such applications during the coming year. The following paragraphs will be more or less academic in nature but will serve to indicate the purpose and direction of the work at present being carried on.

Most of the present knowledge regarding Tea Tannin is the result of experiments carried out by Dr. J. J. B. Deuss. Deuss prepared Tea Tannin by a very laborious method consisting of extraction of fresh Tea Leaves, removal of impurities from the extract by means of various solvents, the concentration of the resulting liquor and precipitation from Chloroform. The product was found to be white, rapidly turning to a brown syrup in contact with air. The instability of Tea Tannin represents the most difficult feature in its preparation.

Deuss found that Tea Tannin is soluble in Water, Methyl Alcohol and Ethyl Alcohol, Acetone, Amiline and Acetic Anhydride; less readily soluble in Ethyl Acetate, Acetic Acid and H_2SO_4 . It is insoluble in Chloroform, Benzene, Carbon disulphide and dry Ether. It gives a Blue Black precipitate or coloration with Ferric Chloride, and a Buff coloured precipitate with Lead Acetate. By means of Potassium Permanganate it is oxidised to Carbon-dioxide and with Nitric Acid it gives Oxalic Acid. It reduces Fehling's solution, gives a yellow precipitate with Phenylhydrazine and reduces Ammoniacal Silver Nitrate. An insoluble red precipitate is formed when boiled with dilute Sulphuric Acid.

Deuss determined certain points concerning the constitution of Tea Tannin. He found that its molecular weight is 404, it contains presumably eight Hydroxyl groups of Phenolic character, one Ketonic Group and no Carboxylic Group.

Tea Tannin, in common with other tannins, is precipitated by Alkaloids and Gelatine. The latter property is taken advantage of in the estimation of Tannins. The foregoing properties represent the main points which are at present known with regard to Tea Tannin.

Precipitation of Tea Tannin by Alkaloids has represented the main portion of this year's chemical work. It enables one to obtain a produce which is a combination of the Alkaloid with Tea Tannin and which is a stable product. Working back from these products it was hoped to obtain further information regarding Tea Tannin.

Assuming that a true combination took place between Tannin and alkaloid, the problem would be a comparatively easy one. Unfortunately it has been found that the compound formed has the property of absorbing Tannin, and even thorough washing does not eliminate entirely such Tannin as has been absorbed. The amount of absorbed Tannin, however, can be reduced to such quantities that it may only be detected by sensitive colorimetric tests.

The Alkaloidal Tea Tannates were prepared by infusing green leaf with boiling water for approximately 5 to 10 minutes, filtering through cotton wool and filter paper till

a practically clear solution is obtained. The Alkaloid, dissolved in very dilute Sulphuric Acid is added and the precipitate allowed to settle. This precipitate is washed thoroughly by a large number of decantations, with water, transferred to a filter paper, and again washed. The product is dried in a desiccator. The fine powder obtained is then, thoroughly shaken up with successive quantities of Ether and Chloroform and dried in air, then in a desiccator and finally in a steam oven at low temperature.

The Tea Tannates which have been prepared up to the present are those of Caffeine, Quinine, Cinchonine, Nicotine, and Brucine. The Caffeine Tannate is of interest as it is presumably present in the Tea Leaf in vivo. When prepared in the Laboratory a Gum was obtained. This substance being soluble in hot water and insoluble in cold is the probable cause of the 'Creaming Down' of tea infusions.

The resulting compounds, with the exception of Brucine Tea Tannate were next analysed for their content of Nitrogen. This would give the weight of the Alkaloid combined with the Tea Tannin. The following Nitrogen contents were obtained:—

Caffeine Tea Tannate ...	...	9.50 % N
Quinine „ „ ...	...	2.535% N
Cinchonine „ „ ...	...	2.5 % N
Nicotine „ „ ...	...	2.8 % N

From these figures and assuming Deuss molecular weight of 404, it is possible to determine the mode of combination of the given Tea Tannates.

Thus:—

1 Molecule of Tea Tannin combines with 1 Molecule of Caffeine.			
2 „ „ „	1 „	Quinine.	
2 „ „ „	1 „	Cinchonine.	
2 „ „ „	1 „	Nicotine.	

In order to compare Tea Tannin with a Tannin of known constitution, similar compounds have been prepared of Gallo-tannin. As yet these compounds have not been analyzed.

The Alkaloidal Tea Tannates will next be employed in the attempts to obtain a factor for Tea Tannin in its estimation by the Iodimetric method. At present the factor employed is the same as that for Gallotannin but there is no evidence that this is the correct factor. From preliminary work done in determining the factor for Gallotannin by the Iodimetric method this factor ranges around 0.92, *i.e.*, the c. cs. os. N/20 Iodine equivalent to the Tannin is multiplied by 0.92 to give the weight of Tannin in milligrams. For Tea Tannin with a different molecular weight and constitution this factor cannot be used, but evidence seems to show that the factor will be a simple function of the Gallotannin factor.

Until this factor has been definitely decided, it is advisable when dealing with comparative work to consider tea tannin in terms of cubic centimetres of iodine, or to express the tannin in Tea as an "Iodine Value." According then as the iodine value of Tea increases or decreases, so the Tannin value also increases or decreases. In the work to be carried out this year such a means of comparison will be employed.

Further investigations have been carried out on the applicability of the Iodimetric estimation of Tannins. Certain modifications of the method have been tried including the use of a standard Bromine solution and of a Potassium iodide and iodate solution in place of Potassium iodine and Iodine solution.

The effect of adding alkali to a solution of Tannin before the iodine, *i.e.*, reversing the normal procedure, was attempted and found to be feasible. This procedure will be employed in determining the true factor for Tea Tannin when estimating it iodimetrically. The alkali precipitates the alkaloid from solution, and the filtrate contains the tannin, though in a modified state. The alkaloid precipitated from a known weight of the alkaloidal tannate will be estimated, and the equivalent of the tannin, calculated by difference, will be determined as cubic centimetres of N/20 iodine.

Other substances to which the iodimetric method of estimation has been applied were mainly the hydroxyphenols

from which various tannins are built up. In connection with these it was found that by appropriate technique accurate determinations of these could be made even when present in very small amounts. The effect of time and dilution on the factors utilized in converting c.c.s. of standard iodine into milligrams of gallo'annin, etc., was also determined.

As a result of this work the validity of the method has been established and useful data accumulated, which will be applied in due course to the analysis of solutions typical of different stages in the manufacture of tea.

Analysis.—Analyses of various manurial mixtures have been carried out, with the exception of the percentage of Potash. This exception was due to the impossibility of obtaining platinic Chloride in India. Queries have now been sent to England for this chemical. The limited number on the staff also precludes the possibility of accepting analytical commissions on a large scale at present.

At the request of the Secretary, U. P. A. S. I., a sample of Trichinopoly Basic Superphosphate was analysed, with the following results:—

Total Phosphate	..	..	16.65	per cent.
Available Phosphate	..	..	4.81	.. "
Lime as CaO	..	..	29.32	.. "
Insoluble siliceous matter	..	..	27.04	.. "
Moisture	..	..	0.78	.. "

The amounts of Iron oxides, alumina and magnesia were comparatively so small that they would not have any influence on the value of the manure and the determination of these was omitted.

Determinations of the degree of acidity existing in soils from various districts have been made and it is interesting to note that almost without exception, the values found were invariably too low for the best growth of tea.

Health.—The health of the coolies on this Station continues to be good. Antimalarial precautions will be continued during the coming year.

TEA ADVISORY COMMITTEE.

The first meeting of this committee took place at this Station on the 31st January, 1929. Various questions relating to the work on the Station were discussed including the Budget for the year 1929-30, the programme of work for the ensuing year and the matter of the expansion of the Station.

The expansion of the Station was to take place if practicable in the vicinity of the present Station, but land being unavailable, it was considered advisable to inspect land along the Mysore Road. Up to the present there has been no opportunity of doing so.

Bearing in mind that districts where *Helopeltis* is rife cannot be considered owing to the possible interference in the progress of any experiments, the choice became limited to the Anamallais and the High Range. During my tour of these two districts in April, certain portions of land were inspected as possible sites.

The first of these portions was land adjoining Stanmore Estate. Approximately 5 acres is flat land,—at present, a Tea Nursery; the remainder is on a reasonable slope, under heavy jungle, a small acreage of which has been planted up in cardamoms.

The second piece of land inspected was some grassland in the High Range. It was situated next to Madupatti Estate. The land is designated Kuttiar. It is entirely grassland; it possesses no level land but the slope is a gradual, and practically uniform, one. A sample of the soil has been taken for analysis. Grassland as a general rule is not favoured in the High Range for the planting of tea, but with the exhaustion of practically all the jungle land, no other is available. A portion of the land is under Sisal cultivation. It is fairly well protected from the South-West Monsoon and as the growth of *Melanoxylon* is very good, further protection could be afforded by the planting of these trees as wind belts.

I should like to take this opportunity of thanking Messrs. Ireland Jones and Ragg for showing me the portions of land referred to.

Touring.—One tour has been carried out this year, *viz.*, to Central Travancore in January 1929. This tour was made at the request of the Travancore Tea Estates Co., Ltd. A comprehensive report was written up with reference to the diseases found.

Correspondence.—During the year under review 896 letters have been received and 823 letters despatched. Letters with reference to the manuring of tea and the control of Diseases are being received in increasing numbers and every care is being taken to reply to these letters in as full detail as possible, and with due regard to the particular conditions prevailing in the district from which the query has been received.

In conclusion, I should like to express my thanks to Mr. K. B. W. Jones, B.Sc., A.R.C.Sc., the Assistant Tea Scientific Officer, for his assistance in compiling this Report.

W. S. SHAW,
Tea Scientific Officer, U. P. A. S. I.

UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA
SCIENTIFIC DEPARTMENT

Administration Report for 1928-1929

OF

W. WILSON MAYNE, B.Sc.,

Coffee Scientific Officer, U.P.A.S.I.

I have the honour to present my report for the five months—November 1928—March 1929.

I arrived in Colombo on October 15th 1928 and proceeded immediately to the U. P. A. S. I. Headquarters at Madras. From October 19th until November 3rd, I stayed in Bangalore as the guest of Dr. Coleman, during which period, I commenced a preliminary study of some of the available literature on Coffee.

The purchase of a car having been sanctioned, I was able to proceed to Balehonnur on November 5th. I moved into the Bungalow on Netraconda Estate which Mr. Browne has kindly lent for my use, on November 17th.

The Report will comprise a short account of Touring Work and an outline of the Scientific Investigations which have been commenced.

Preliminary Tour :

In order to obtain some idea of the conditions under which Coffee is grown and the difficulties attending its culture, a tour was arranged for me by Dr. Coleman, with the co-operation of the Coorg and Mysore Planters' Associations. During this tour, which lasted from December 1st to 23rd, I visited about 16 estates situated in the Bababudins, South Mysore and North and South Coorg. These four Sub-divisions are convenient for the consideration of the tour.

1. Bababudins :

This is the northernmost Coffee area in South India and possesses some extremely fine estates producing an exceptionally high quality bean. It is not easy to give reasons for the

somewhat intangible features of "quality" but the extremely favourable climatic conditions, more particularly the amount and distribution of the rainfall, are doubtless of importance.

Most of the Coffee in this District grows on fairly steep slopes while at one or two places the gradient was quite precipitous. Notwithstanding this, the Coffee looked very fit in the steepest fields. The soil on such slopes is rarely touched and the mulch is usually very thick. The importance of a fair soil depth is well illustrated in the many places where the hillsides are intersected by shallow ravines separated in many cases by stony ridges. The coffee is always better and thicker in the ravines than on the ridges.

The Bababudins are reputed to be the first home of Coffee in South India and it is fairly certain that some of the earliest plantations were opened there. I was able to visit one of the oldest existing plantations at Mylamoney where some of the trees still producing crop are over 80 years old. This old Coffee is planted in a series of isolated fields, the areas between having been bought and planted up by small proprietors at a much later date. There was no attempt made to line the trees when they were planted and they stand at all distances from 18 inches to 6 feet apart. In spite of their age, these areas are still bearing excellent crops.

All the usual diseases and pests of Coffee are present in the District. Greenbug is very serious on one or two estates and as the monsoon rains are comparatively light, the pest receives only a slight check at this period and is present in appreciable quantity all the year round. The fungus diseases of the bug exert a partial control but with the advent of Bordeaux spraying for Blackrot and Leaf Disease, these fungi are also destroyed and this control is lost. Destruction of ants' nests has given some help as the ants attend on the bug and help to preserve it over the unfavourable periods. When the attack is mainly in a small area, spraying with Fish Oil resin Emulsion is a very satisfactory means of control but if the attack is widely distributed such a spraying is not possible.

Blackrot occurs in a number of sheltered areas but complete control can be obtained with a Bordeaux spraying immediately before the monsoon.

My attention was drawn to the serious damage done by Die back in the hot weather, though, of course, none was in evidence at the time of the tour. I was informed that a certain degree of control had been obtained with Bordeaux spraying. This spray was mainly applied for protection against Leaf Disease, so that the effect on Die back was purely incidental. With a more accurate knowledge of the climatic conditions favouring this disease, and the mode of infection, it is possible that a spray applied at the most favourable time will give much greater protection.

Borer also does a great deal of damage and there appears to be no very effective means of control. Some diminution of attack is found where the shade is thick. Other means which may be employed are the hand collection of beetles and the scrubbing of the tree stems but neither is very satisfactory from an economic point of view, when a large area is concerned.

Some root disease was also seen on one estate. Trenching and liming heavily had been used and the spread of the disease had been appreciably checked.

Most of the above notes on these diseases and pests apply generally throughout the districts visited during the tour.

South Mysore:—

This does not form such a well defined district as the Bababudins. The estates visited varied a great deal both in type of situation and general condition. The question of pruning and handling was brought to my notice during my tour of this District. There appears to be much difference of opinion with regard to this matter. Ordinary removal of dead twigs is of course quite general and needs no comment. The actual pruning however shows much variety. In some cases, extensive centring out of the trees is practised and while this is of value in reducing the risk of damage in Black-rot areas due to a closely packed mass of interlacing leaves and twigs, too extensive removal of the inner twigs results in a large hollow, letting in much light and no doubt, encouraging borer. Though I have seen estates where pruning is practically never carried out, I am of the opinion that this is not to the best advantage of the tree. A well-shaped tree with many secondaries and tertiaries is much more

productive than one in which there are large branches with a few leaves at the tip, and a considerable length of unproductive wood such as are found on unpruned trees. In addition the actual picking costs, and if spraying is necessary, spraying costs also are reduced where trees are compact and even.

The previous remarks on diseases apply to the conditions in this District with but minor additions. Rootrots were to be seen occasionally in almost every estate, but only one appeared to be really seriously attacked. Mere liming was found to be without effect, trenching being the only useful means of reducing the rate of spread. The importance of an adequate number of apparently healthy trees being included within the trench cannot be over-estimated. Again and again, I have seen a tree dying of root disease just outside a trench indicating that the fungus was already present on or near this apparently healthy tree when the trench was dug. At least one row of healthy trees should be included in the trench. Two other points which must be observed if trenching is to be of any value are:—

(1) The earth excavated must be all thrown *inside* the trench and any roots or decayed wood should either be burnt or at least charred on the spot.

(2) The trenches must be kept clean and open; a thick deposit of leaves in the trench provides a highway for the fungus.

I was able to see a considerable amount of sprayed coffee in South Mysore, including some carried out with Burgundy mixture, in place of Bordeaux. The results of the use of this mixture were in no way superior to Bordeaux sprayed coffee, while a certain amount of leaf burning appeared to have occurred.

In every case, the sprayed coffee looked much fitter than adjacent unsprayed areas.

North Coorg:—

The area includes some very fine coffee grown much as in the districts already described. The prevailing use of renovation pits in Mysore is here replaced by systematic trenching. The results aimed at in both cases are probably attained but the presence in one or two cases of trenches running with the slope does not seem in the best interests of

the soil. In general, however, the trenches followed the contours and of course this is a well established and satisfactory method on sloping land.

I was shown the manufacture of a pulp compost by the addition to the pulp residues of "Adco." While this, no doubt, increases the manurial content of the compost, the decomposition of untreated pulp is so rapid that any addition to increase the rate of decomposition seems unnecessary. "Adco" was originally designed for use with much more slowly decaying organic matter than coffee pulp.

The usual diseases and pests are to be found in this district, though leaf disease is not feared to the same degree as in Mysore.

Another insect pest not met in Mysore was brought to my notice, viz., Cockchafer. I was unable to see actual specimens and the area I was shown as suffering from Cockchafer partook more of the appearance of a slowly spreading rootrot, since it was restricted to one small ravine in which it was spreading in a circle. Since the tour, I have seen a note by Mr. Anstead in an old "Planters' Chronicle" in which the damage due to cockchafer is dealt with. He writes as follows:—

"The grubs and beetles themselves can be found in the soil around the roots of Coffee trees at all times of the year and they undoubtedly do a lot of damage and are often responsible for the death of young plants which have their roots bitten off and then die in the dry weather. In the dry weather the grubs get down deep in the soil and I have taken them out as deep as to 2 and 3 feet."

"Afterite seems the best remedy for this pest and a great deal of success has been obtained with this soil disinfectant in North Coorg where it has given almost complete immunity from the attacks of the Cockchafer larvae."

At the time this account was written, Mr. Bainbrigge Fletcher identified the insect as *Holotrichia Conferta*.

A number of beans were shown me at one estate which appeared to have been bitten. No insect was present in the bean so that nothing definite could be said as to the cause.

The damage was certainly not due to *Stephanoderes*.

South Coorg:—

During the time spent in South Coorg, I visited Sidapur. My visit was unfortunately timed as all the plot labels had been removed for painting so that I was unable to see the details of the plots.

The main points of interest in this District were the areas which had been collar pruned, some fields of Robusta and a field of Arabica suffering from Root Mealy Bug.

One area of collar pruned coffee which was seen had re-established itself extremely well indeed, but in one or two other places the same success had not been achieved. Where the attempts had succeeded, I was told that it was due mainly to the fact that before the collar prune was done, the coffee was untouched for at least twelve months before stumping. The failure elsewhere, I was informed, was due to the neglect of this "abandonment" before pruning. The importance of this procedure is, I think, obvious, as the ordinary treatment of Coffee is not conducive to the laying up of reserves in the roots, and without ample reserve supplies of food, the stump left after pruning cannot produce a vigorous new shoot.

The fields of Robusta seen, looked very fine, in contrast with a good deal of the arabica in the near neighbourhood. I was struck by the enormous variety of types in this planting, and there is no doubt that selection would considerably improve this type of coffee. The only serious pest is a shot-hole borer (*Xyleborus Coffeae*) and like most boring insects is very difficult to control. Beyond the careful collection and burning of infested twigs, there seems to be no satisfactory method of dealing with this pest. I was shown one or two cases of this borer on arabica trees but it does not seem to attack this type very seriously.

The root mealy bug (*Pseudococcus citre*) was found mainly in one field, where the damage done to both young Coffee and to (*Erythrina lithosperma*) dadap was considerable. The reasons for its restriction to this area are unknown but one feature of the soil is very striking. A series of four soils were taken from fields in this estate including the one where mealy bug is serious. These four analyses were all very similar except in one respect—the amount of available

phosphate. This together with the amount of available potash and the total amounts of phosphate and potash are given in the table:—

		1	2	3	4
Total K_2O	..	·075%	·20	·13	·15
Available K_2O	..	·012	·033	·021	·027
Total P_2O_5	..	·14	·17	·12	·15
Available P_2O_5	..	·004	·026	·008	·006

The second analysis is taken from the field in which mealy bug was serious. It is notable that this shows the presence of 3 to 6 times the amount of available phosphate found in the other three. Whether there is any real connection is as yet unknown, but it is a point worth attention.

The bug itself is a small brownish insect with a soft body, covered with a mealy secretion. It feeds, like green bug and its allies by sucking the plant juices, but is more active and retains the power of changing its position after it becomes adult.

Some success has attended the use of a lime, sulphur, and crude tobacco mixture which is incorporated with soil when planting.

Other visits:—

I have paid a number of short visits to estates in the near neighbourhood from time to time in order to amplify and extend my knowledge of ordinary estate conditions, methods and so on.

Scientific Work:—

The scientific work commenced falls under two heads—Leaf Disease and Root and Stump Rots. Little more can be done in this report than indicate the lines of work as both these investigations will take time before the results can be stated.

Leaf Disease:—

A detailed description of Leaf Disease would be out of place in this report as it is well known to all Coffee planters. Suffice to say that it is caused by a rust fungus, *Hemileco*

Vastatrix, which grows inside the Coffee leaf tissues and produces large numbers of yellow spores on the under-surfaces of the leaves.

As early as 1886 it was found that Bordeaux mixture could be used for killing the spores and preventing them growing into the leaf tissues. In recent years, spraying with Bordeaux for leaf disease has increased very considerably in South India, and with the improved mechanical aid of larger and more efficient spraying machines, this increase is likely to be maintained.

Practically no work has been done on the seasonal sequence of Leaf Disease and its relation to South Indian climatic conditions and since this knowledge is fundamental to successful spraying it was decided that some investigations on this matter should be commenced. In a general way, as far as Mysore is concerned, it is known that attacks occur usually in September-October and in the early months of the year, but this, of course, refers to the times when the attack is clearly noticeable and when it is much too late for spraying to be effective. An illustration of this is clearly shown in the conditions in September 1928, when a number of planters informed me that they had failed to catch the post-monsoon attack as it had started earlier than usual.

Further many times in the history of the study of Leaf Disease it has been suggested that some other stage of the disease on some jungle plants, which serves to carry the fungus over the period when conditions are unfavourable to the development of the stage on coffee. The fact that a type of spore has been found in the past on the yellow spots on the coffee leaf which is unable to reinfect coffee has lent colour to this suggestion. It was felt that detailed observations on the behaviour of the fungus during the seasons when Leaf Disease is not strongly in evidence might throw some light on this question.

By the courtesy of Mr. H. Browne, to whom my thanks are due, some observations were commenced on some young coffee about five years old in a clearing at Netraconda. About thirty trees were brought under observation and the following data ascertained once a fortnight:—

1. Total number of leaves in each tree.
2. Number of leaves bearing disease spots.
3. Total number of spots.

It would have been better if a larger number of plants were used but no suitable clearing was available at the time the experiment was started. Thirty plants of the age of this clearing are as much as can be conveniently examined without an undue consumption of time. Up to March 31st, four counts have been made and it is hoped to continue the observations for at least twelve months. It is obvious that the figures so far obtained cannot yet be discussed.

Together with this Fieldwork, an attempt to germinate the spores in some liquid under laboratory conditions has been made. So far the results have not been very successful—the number of spores germinating has been so small that they would be valueless for experiments on the toxicity of Bordeaux and other fungicides, for which these germination studies were a preliminary. As soon as possible these studies will be repeated with solutions of various nutrient materials.

A further line of work which will be taken up is the study of the factors involved in resistance to the disease. Already in the area under observation, certain trees are marked out by high susceptibility and others by high resistance. These will provide ample material for an investigation of this character.

Root and Stump Rots:—

The study of this serious group of diseases has been practically untouched in the case of coffee. It was considered necessary, therefore, to obtain information as to the causative organisms and to see how far these were similar to or identical with those of other tropical woody plants. As a preliminary step to obtain some knowledge of the better known root diseases of tropical woody crops, a knowledge which could be readily substantiated by reference to published work, an examination of a number of tea root diseases from a tea Estate in the neighbourhood was made. In a short time all the root diseases affecting tea mentioned in "The Tea Scientific Officers" Report for 1928 were found.

A collection and examination of Coffee trees suffering from rootrot was commenced. Three types have so far been found, and two of them are identical with two root diseases of tea. The third is so far not identified.

Two cases of Brown Root Disease caused by *Fomes Lamaoensis* have been found. One of them is especially striking in that the tree killed was a Robusta, a type not usually very susceptible to root diseases. Near where the latter case was found is a field of tea in which a number of cases of Brown Root disease has occurred on both Tea and *Tephrosia candida*.

The second type has so far only been found on one coffee tree but the vacancies around it indicated that others had probably died in the same area. The features showed the attacking fungus to be *Rosellinea Aruata*, which is well known as a root disease of tea. This case was definitely associated with a bussari stump, on the exposed roots of which were large numbers of the fructification of the fungus.

A disease transference experiment was set up utilizing pieces of tea, coffee, and *Ficus* (Bussari) root on which the fungus was present.

1. 6 Coffee plants in pots.
 - (a) 2 pots. Infected coffee roots in contact with a root of potted plant.
 - (b) 2 pots. Infected tea roots in contact with a root of potted plant.
 - (c) 2 pots. Infected bussari roots in contact with a root of potted plant.
2. 6 Coffee plants in pots.
 - (a) 2 pots. As 1 (a), but infected root not in direct contact with root of potted plant, but merely buried in the soil.
 - (b) 2 pots. As 1 (b), with the difference noted in 2 (a).
 - (c) 2 pots. As 1 (c) with the difference noted in 2 (a).
3. 6 Coffee plants in pots. Untouched, left as controls.

This series was set up on January 24th. No signs of death were visible in any cases up until March 31st.

The third type of root disease has not been identified with certainty as its features differ from the descriptions available of root diseases and no fructifications have been obtained either in the field or on stumps kept at my bungalow.

The main feature of this disease is the presence of a black coating over the tap root and larger laterals. There are no signs of the cemented earth or the tawny brown hyphae so characteristic of *Fomes Lamaoensis*. Beneath the black crust a web of white fungus hyphae were to be found. The wood was dry and hard. There were none of the fine black lines in the wood such as are usual in roots attacked by *Fomes*. Under the bark there is a white layer composed of fungus hyphae and the remains of broken down cells. In most cases areas on the tap root show a sealing of the bark and the exposure of the underlying wood. The black outer crust is composed of a compacted mass of brownish black fungus hyphae.

The cases so far found were associated with dead shade tree stumps, similar symptoms to those described on the coffee being present on the roots of the stumps. So far no direct connection has been traced.

The above observations need to be extended over a much large number of cases from a wider area before it is possible to decide the relative importance of these types. In this work, the co-operation of planters would be much appreciated so that as representative a collection of rootrots as possible can be made. Until it is known which types are the most serious, and widespread, it would be unwise to commence any extended work on diseases which may be only sporadic.

Once a knowledge of the main types is obtained, an investigation of the mode of spreading and particularly of their soil preferences can be made. The latter is of the first importance in elaborating more suitable methods of control. That the different types may require different treatment is shown by the fact that during my tour I was informed that liming had an ameliorative effect in one place, while in another no effect resulted from such treatment. In any case, it is unlikely that lime has a direct fungicidal action; if it is of value, its effect is almost certainly by indirect action through the soil.

Conclusion:—

I attended a meeting of the Coffee Advisory Committee of the Experimental Station, Balehonnur, on February 12th and 13th, and a meeting of the United Planters' Association, South India, General Committee at Ootacamund on March 4th.

I should like to take this opportunity of expressing my most cordial thanks to all the planters whose kind hospitality and assistance I received during my tour, to members of the Mysore Agricultural Department who have always been ready to assist me at all times, and in particular to Dr. Coleman who has helped, guided and advised in every way during my introduction to the problems of the Coffee Plant.

(Signed) W. WILSON MAYNE,

Coffee Scientific Officer.

**UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA
SCIENTIFIC DEPARTMENT.**

**Report on the
Rubber Experimental Station,
MUNDAKAYAM,
for the Year 1928-1929.**

At the end of August 1928, Mr. Ashplant, who was very run down from repeated attacks of fever for which he could get no satisfactory diagnosis or treatment locally, went to consult a specialist in Bombay who ordered him Home immediately. Before leaving he sent a detailed programme of work to his Assistants, at the same time writing to Mr. Ure of the adjacent estate of Vellanadi, asking him to keep an eye on the Station.

The work done during the year has followed generally the programme laid down by Mr. Ashplant. A brief summary is appended:—

All the vacancies in the recently planted experimental area, which had been left through lack of bud-wood, were planted and budded from high class material supplied by estates. These areas have been regularly weeded and all were sprayed.

In December Blocks 11 and 14 were manured with Diammonphos at the rate of $1\frac{1}{2}$ and 3 lbs. per tree.

Preparations were made for spraying the 87 acre Aneikulam Station and the work was carried out in April with highly satisfactory results.

In continuation of the investigations on Brown Bast, a count was made of the number of latex rings on all the 7,000 odd trees on the Aneikulam Station and the correlation of this factor with Brown Bast looked into.

The regular daily yield measurement of the 240 trees specially investigated for tube bore and other factors have been kept up, whilst measurements of bark thickness have also been regularly taken.

The work of classifying the plants in the nurseries on a tube bore basis has been going on throughout the year, and nearly 10,000 plants have been dealt with.

The work just mentioned was interrupted a good deal by the necessity for training estate staffs in Mr. Ashplant's Selection Process. Over a dozen writers from different estates received training at the Station. In addition members of the Station staff were lent to certain estates for varying periods.

A certain amount of work was also done in clearing up outstanding points on latex tube bore, the question of the earliest age at which tests can be undertaken being particularly looked into.

In early November Mr. W. L. Geach arrived from England to take up the duties of Assistant Mycologist. Being new to the East he occupied himself mainly with work in the laboratory in accordance with programme.

The Bungalow had long been needing extensive repairs which were difficult to carry out with anyone in residence, and in November they were started.

The repairs proved a much larger task than appeared on the surface and eventually the whole floor of the upper verandah had to be taken up. It was found necessary to replace with new timber most of the flooring, all the Ballustrade, 8 of the posts, 45 of the rafters and 2 wall plates of one of the bed rooms. All the new timber was either Them-bavoo or Irul and all the old timber that was not removed received a liberal application of wood preservative.

The concrete floor of the front verandah was taken up entirely and relaid with an outward slope and the side and back verandahs were repaired where necessary. The work on the upper verandah was only in process of completion at the close of the year.

On 6th February Mr. Geach was relieved of his position and sailed for Home before the end of the month. Mr. Ure agreed to overlook the Station for the time being.

In March preparations were started for the construction of a new writer's house and five cool rooms. The building committee of the Rubber Advisory Committee decided to

erect the rooms separately in two two-roomed and one one-roomed line for the convenience of housing a small labour force of different castes.

This brief report should correct any impression that little or nothing has been done at the Station during the year. Not only have all the records which constitute a large part of the work of Experimental Station been kept up, but most of the works in progress have been continued. Mr. Ashplant, who returned in July, is of opinion that the Station has been maintained in a very satisfactory condition, and that a lot of valuable data have been accumulated.

Our appreciation is due to Mr. Ure for all the time and trouble he spent on looking after the Station during Mr. Ashplant's absence.

(Signed) G. McPHERSON,
Chairman, Rubber Advisory Committee.

ACCOUNTS, 1928-1929.

THE UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA.

(INCORPORATED.)

Income and Expenditure Account for the Year ending 31st March, 1929.

EXPENDITURE.	Rs. A. P.			INCOME.	Rs. A. P.			Rs. A. P.
	Rs.	A.	P.		Rs.	A.	P.	
TO HEAD OFFICE—								
" Secretary's Salary ..	20,325	0	0	By Subscriptions, 1928-1929 ..	1,50,784	3	6	
" Acting Secretary's Salary ..	3,150	0	0	" Tea Cess ..	52,375	6	2	
" Acting Director's Salary ..	1,800	0	0	" Coffee Cess ..	16,424	6	10	
" Asst. Secretary's Salary ..	5,200	0	0	" Rubber Cess ..	40,851	0	3	
" Secretary's Travelling ..	398	14	0	" Labour Department Cess ..	2,27,136	5	6	
" Secretary's Motor Mileage ..	430	0	0	By Labour Department Sundry Receipts—				
" Office Establishment Salaries ..	3,944	5	0	" Interest on Labour Department Bank Account ..	341	5	2	
" Printing and Stationery ..	1,135	0	11	" Subscriptions ..	511	1	0	
" Rent ..	7,445	11	0					
" Incidentals ..	547	15	6					4,87,571 6 3
" Bank Charges ..	111	3	0					
" Audit Fees ..	500	0	0					
" Telephones and Fans ..	270	11	0					
" Insurance ..	13	2	0					
" Depreciation ..	733	9	10					
" Periodicals and Library ..	67	0	0					
" Postages and Telegrams ..	126	10	0					
" Statistics ..	573	12	0					
" Provident Fund Contributions ..	3,587	8	0					6 2
" European ..								

[illegible]

THE UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA.
(INCORPORATED.)

Balance Sheet as at 31st March, 1929.

CAPITAL AND LIABILITIES.	RS.	A.	P.	Rs.	A.	P.	PROPERTY AND ASSETS.	Rs.	A.	P.	Rs.	A.	P.
ACCUMULATED FUND.—							FIXED CAPITAL EXPENDITURE.—						
As per last Balance Sheet ..	3,66,446	5	10				Land.—						
Less Transfer to Reserve Fund ..	50,000	0	0				Bungalow sites as per last Balance Sheet..	9,105	13	6			
	3,16,446	5	10				Less Transferred to Bungalow account ..	1,541	5	6			
Add Excess of income over Expenditure for the year as per Income and Expenditure Account ..	65,928	1	10				Additions during the year ..	7,564	8	0			
							Buildings.—	14,116	15	9			
RESERVE FUND.—				3,82,374	7	8	At Mysore as per last Balance Sheet ..	9,950	13	0			
As per last Balance Sheet as shown per contra.	1,00,000	0	0				Additions during the year ..	14,544	5	4			
								24,495	2	4			

<i>Aid Transfer from Accumulated Fund.</i>	50,000	0	0	1,50,000	0	0	At Palamcottah as per last Balance Sheet Rs. 24,590-0-0
SOUTHERN INDIA PLANTERS' BENEVOLENT FUND.							Additions during the year Rs. 1,541-5-6
As per separate statement and invested as <i>per contra</i> ..				1,14,616	7	7	Rs. 26,131-5-6 Less Depreciation for the year Rs. 1,481-5-8
PROVIDENT FUND..				1,00,960	11	8	24,649
MYCOLOGIST BONUS FUND.—							15 10
Amount due to Mr. H. Ashplant and partly invested as <i>per contra</i> ..							At Mundakayam Mycologist's Bungalow as per last Balance Sheet Rs. 37,000-0-0 Less Depreciation for the year Rs. 2,390-0-0
LIABILITIES.—				18,837	6	5	34,610 0 0
<i>For Expenses.—</i>							At Nellakotta Tea Station as per last Balance Sheet Rs. 84,000-0-0
Audit Fee at Head Office and Divisions.	2,750	0	0				Additions during the year Rs. 23,438-4-6
Sundries ..	3,762	9	6				Rs. 1,07,438-4-6
Bonus unpaid ..	20	0	0				Less Depreciation for the year Rs. 5,373-4-6
	<u>6,532</u>	<u>9</u>	<u>6</u>				<u>1,02,065 0 0</u>

Balance Sheet as at 31st March, 1929.—(continued.)

CAPITAL AND LIABILITIES.				PROPERTY AND ASSETS.						
Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.		
<i>For Other Finance—</i>				At Nagercoil as per last Balance Sheet						
Due to Sundry Estates.—				Rs. 12,330-7-9						
For advances received				Additions during the year						
at Divisions ..				1,04,093	11	7	Rs. 1,823-0-6			
Planters' Chronicle—				Rs. 14,153-8-3						
Syndry Creditors ..				4,019	4	11	Less Depreciation for the year	14,000	0	0
U.P.A.S.I. Sports Club.				5,847	11	9	Rs. 153-8-3	4,359	10	0
U. P. A. S. I. Buying Agency Subscriptions unexpired ..				2,020	5	4	At Coimbatore ..			
Rubber Cess received in excess ..				489	4	0	FORD CARAVAN..			2,04,179
Due to Director ..				14	15	6	<i>Furniture.—</i>			12
Income-tax ..				273	12	0	At Head Office and Divisions as per last Balance Sheet ..	7,764	8	0
Due by Agencies for Railway deposits ..				14,350	0	0	Additions during the year ..	3,426	8	0
							Less Depreciation during the year ..	11,191	0	0
								1,881	8	0
				1,37,641	10	7				9,309
										8
										0

<i>Laboratory Apparatus—</i>						
At Nellakota Tea Station as per last Balance Sheet ..	7,175	0	0			
Additions during the year ..	144	6	6			
	7,319	6	6			
Less Depreciation for the year ..	1,831	6	6		5,488	0
					1,349	0
					2,735	12
						10
<i>Office Accessories</i>						
Stationery ..						
<i>Advances—</i>						
Motor Car advances at Head Office and Divisions ..	12,650	0	0			
Sundries ..	1,917	8	3		14,567	8
						3
<i>Book Debts—</i>						
At Head Office—Considered Good ..	2,917	13	9			
At Divisions—Considered Good ..	276	9	0			
Estates on a/c of advances at Divisions ..	1,242	5	1		4,436	11
						10

Balance Sheet as at 31st March, 1929—(continued.)

CAPITAL AND LIABILITIES.	Rs.			PROPERTY AND ASSETS.			Rs.		
	A.	P.	P.	A.	P.	P.	A.	P.	P.
				<i>S.I.P. Benevolent Fund.</i>					
				Rs. 18,500—3½ % Gov-					
				ernment Paper at					
				Rs. 75 valued at					
				Market rate on 31st					
				March, 1928		13,875	0	0	
				Imperial Bank of					
				India, Fixed Deposit.		93,000	0	0	
				Interest accrued on					
				Fixed Deposit; and		1,102	7	0	
				Government paper.					
				Imperial Bank of India		5,838	12	7	
				Current Account ..		50	4	0	
				Cash at Head Office.		750	0	0	
				Loan ..					
							1,14,616	7	7
				<i>Mycologist Bonus In-</i>					
				<i>vestment A/C.—</i>					
				Bonds for Rs. 16,700		17,655	13	0	
				at cost ..		80	8	0	
				Add Interest accrued.					
							17,736	5	6

Balance Sheet as at 31st March, 1929.—(continued.)

CAPITAL AND LIABILITIES.	Rs.		Rs.		PROPERTY AND ASSETS.		Rs.		Rs.		A. P.	
	A.	P.	A.	P.			A.	P.	A.	P.	A.	P.
					Imperial Bank of India, Fixed Deposit ..		1,50,000	0	0			
					Interest to date ..		2,144	1	11			
					Bank of Mysore Ltd. — On Current Account ..		2,753	9	10			
					Co-operative Bank Union, Ltd., Srivilliputtur ..		5,056	1	4	4,03,868	10	1
Total ..					Total ..					9,04,430	11	11

W. A. J. MILNER.

MADRAS, 16th May, 1929. *Committee Member.*

H. WADDINGTON,

Secretary, U. P. A. S. I.

R. LESCHER,

Chairman.

We have to report that we have audited the Balance Sheet of the UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA (Incorporated) as at 31st March, 1929, and above set forth and have obtained all the information and explanations we have required.

The Returns from the Branches of the Association, incorporated in the above Balance Sheet, have not been audited by us.

In our opinion such Balance Sheet is drawn up in conformity with the Law and, subject to the above remark, exhibits a true and correct view of the state of the Association's affairs according to the best of our information and the explanations given to us and as shown by the Books of the Association and the returns from the Divisions.

FRASER & ROSS, } *Auditors.*
Chartered Accountants.

BUDGET, 1929-1930.

UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA.

BUDGET 1929-1930.

EXPENDITURE.	Rs.	Rs.	INCOME.	Rs.	Rs.
To HEAD OFFICE—					
Secretary	21,600		By SUBSCRIPTIONS—		
Asst. Secretary	7,000		Firms and Companies	2,550	
Rents, Bungalows and Office	8,400		Tea 113,124 acres at As. 14	98,983	
Clerical Staff	4,265		Coffee 49,350 acres at As. 10	30,844	
Telephones, Fans and Lights	450		Rubber 47,121 acres at As. 8	23,560	
Peons	260		Minor Products 4,689 acres at As. 8	2,344	1,58,281
Postages and Telegrams	600		By LABOUR DEPARTMENT—		
Stationery and Printing	1,000		To be collected		2,35,058
Bank Charges	150				
Audit	500				
Insurance and Depreciation	1,000		By SCIENTIFIC DEPARTMENT—		
Incidentals	350		Contribution from Madras Government	28,000	
Travelling	500		Coorg "	2,350	
Motor Mileage	500		Travancore "	2,055	
Periodicals and Library	200		R. G. A.	2,650	
Provident Funds—European	3,040		Proceeds Tea Cess 113,124 acres at As. 8	56,562	
Indian	260		Coffee 17,484 acres at As. 2	10,151	
Medical "	50	50,125	31,866 " at As. 4	-47,121	1,48,889
			Rubber 47,121 acres at Re. 1		
To MEETINGS			By INTEREST	6,500	
Employers' Federation of S. I		6,000	PLANTERS' CHRONICLE		3,000
		250			

To POLITICAL DEPARTMENT—					
Mr. F. E. James ..	25,500				
Provident Fund ..	2,550				
Office Expenditure and					
Incidentals ..	2,460				
Travelling ..	2,750				
	33,260				
Less Contributions from					
Chambers ..	11,660				
			21,600		
To SCIENTIFIC DEPARTMENT—					
Tea Experimental Station ..	51,055				
Indian Tea Association ..	10,000				
Office Scientific Officer ..	11,000				
Mundakayam Rubber Station ..	51,752				
General Charges ..	1,550				
			1,25,357		
To LABOUR DEPARTMENT—					
Director's Office ..	50,000				
Coimbatore Division ..	52,692				
Salem ..	26,395				
Mangalore ..	44,595				
Mysore ..	42,500				
Palamcottah ..	57,600				
Srivilliputtur ..	46,276				
Excess of Income over Expenditure.			3,20,058		
			28,838		
			5,52,228		
				Total Rupees ..	5,52,228

SUNDRY RECEIPTS
Planting Directory (no new issue)
Book of Proceedings

500

10,000

MAHAS, Passed at a Meeting of the General Committee held on 4th March, 1929. H. WADDINGTON,
19th March, 1929. Secretary.

APPENDIX.**Rules of the U. P. A. S. I. (Incorporated.)**

I. Each District Association shall register with the Secretary not later than 1st day of January each year details of the area on which subscriptions due to the U. P. A. S. I. are to be calculated for the ensuing year.

II. The Chairman shall be elected by ballot at the Ordinary General Meeting of the Association held each year and shall hold Office until a successor has been duly elected.

III. Should the Office of Chairman become vacant the Executive Committee shall appoint one of its members to hold Office and fill the consequent vacancy in the Committee, such appointments to hold good until the next Ordinary General Meeting of the Association.

IV. In the absence of the Chairman in the case of any Banking Accounts requiring two signatures those of the Secretary and any member of the Executive Committee shall suffice.

V. The election of the Executive Committee shall be by ballot, representatives of each industry to be elected by the votes of the area under the corresponding products only.

VI. No subject other than those on the published Agenda shall be discussed except with the consent of the meeting. No original proposition shall be made unless thirty days notice in the case of an ordinary Meeting and fourteen days notice in the case of a General Committee Meeting, stating objects and reasons, has been given to the Secretary; except with the consent of the Executive Committee with which a copy of the proposed resolution has been lodged at least two days before the meeting.

VII. Rescinded.

VIII. In addition to its two nominated representatives each District Association may send three of its members to attend the General Meeting of the Association who shall be allowed to address the meeting, with the permission of the Chairman, but shall not vote.

IX. The Budget for the ensuing year shall be submitted to the General Committee before the 1st day of March each year.

X. The Trustee of the Cochin Port Trust representing the Association shall always, if possible, be a planter and shall be elected by the postal vote of the active Members of the Executive Committee.

THE U.P.A.S.I. BUYING AGENCY (U.B.A.)

Rules.

Constitution. I. The Agency is and shall be a Department of the United Planters' Association of Southern India, and as such its affairs shall be administered by the General and Executive Committees of that body and the Secretary shall be the Secretary of the U.P.A.S.I.

Objects. II. As an Agency to obtain concessions as regards prices charged for goods supplied or services rendered its members in return for prompt payment and to encourage combination in placing buying orders.

Membership. III. The following shall be entitled to membership on the payment of an annual subscription of Rs. 10 which may be collected by the Secretary forwarding the Membership Ticket by V. P. Post for Rs. 10-4-0.

All Members and European employees of Members of the U. P. A. S. I., all Members of District Associations which are members of the U.P.A.S.I. and all European employees of the U.P.A.S.I.

IV. Membership shall be reckoned from the 1st of the month nearest to the date of receipt of application and all renewals shall date from the expiry of the previous ticket, in no case shall any allowance be made for absence on leave or any ticket be issued for a period of less than twelve months. Any member whose subscription is one year in arrears shall cease to be a member.

V. A Member's subscription will cover purchases by himself or any actual dependent and all purchases for any estate of which he is Superintendent or Owner (otherwise than as a Director or Shareholder only) if they subscribe to a District Association which is a member of the U.P.A.S.I.

VI. Members failing to settle their accounts with Firms in the list as provided for in Rule VII will be liable to have their names removed from the list of members and cease to be entitled to any of the benefits obtained by the Agency.

VII. The names of Firms, Companies and persons who agree to grant special terms to Members of the Agency shall be entered in a list kept for that purpose which shall from

~~time to time~~ be circulated to all Members, and such Firms, Companies and persons shall be furnished periodically with the Agency list of members.

Liability.

VIII. The Agency will not be responsible in any way for the action of its members or of the firms, Companies, and others granting special terms.

Profits.

IX. Any balance being a Profit at the end of a year shall be credited to the Southern India Planters' Benevolent Fund.

X. In no case shall the Secretary act as the agent of a member in any business connected with the Agency.

U.P.A.S.I. SPORTS CLUB.

Rules.

1. *Membership*.—The following shall be entitled to Membership of the Club on payment of the annual subscription which shall be due on the 1st of April:—

- (a) All District Associations which are Members of the U. P. A. S. I.
- (b) Any European Proprietor, Manager, Superintendent, or Assistant Superintendent of an Estate subscribing to a District Association, which is a member of the U. P. A. S. I. or any member of such Association or any European employee of the U. P. A. S. I.
- (c) Any person directly interested in planting as a Director or Agent and not eligible under (b) may become a member of the Club on being admitted by a majority of votes of the Committee, taken by ballot.
- (d) Any European resident in a planting District, employed by a Planting Company subscribing to the U.P.A.S.I., and not eligible under clauses (b) and (c), may become a member on the recommendation of the District Association concerned and accepted by the Committee by ballot.

2. *Annual Subscription*.—Members under Clause (a) of Rule 1, Rs. 50.

Members elected under Clauses (b) and (d) of Rule 1 shall pay an annual subscription of Rs. 10.

Members under Clause (c) of Rule 1, Rs. 20.

An annual subscribing member whenever temporarily out of planting employment shall be allowed to remain a member of the Club for a period of one year provided that his subscription is paid for this period. Such period to be from 1st April following the date of his unemployment.

Any Member of the Club except those under Clause (a) of Rule 1, can become a Life Member on payment of Rs. 150.

3. *Period.*—Membership shall be for a year commencing 1st April to 31st March.

4. *Resignation.*—Any Member shall have the right of resigning his Membership by giving notice in writing to the Secretary on or before the 31st March of any year provided that his subscription shall have been paid up to the 31st March of that year.

5. *Management.*—The affairs of the Club shall be administered by a President and Committee of four being Members of the Club who shall be elected at the time of the Planters' Week and shall exercise absolute control over the affairs of the Club except as otherwise provided for in these Rules.

6. *Some Powers of the Committee.*—The Committee shall have power to alter the rates of subscription as from next 1st April in any year, to make and alter Rules and to add to their number from other Members of the Club and shall elect a Secretary. Such alteration of rates and Rules to be brought up for sanction at the next General Committee Meeting.

7. *Treasurer.*—The Treasurer of the Club shall be the United Planters' Association of Southern India who shall receive and disburse all monies of the Club under the direction of the Committee.

8. *Finance.*—The Funds of the Club shall be used:—

- (a) For the purpose of financing the expenses of matches played by representative Teams of the Club against outside Clubs and inter-district matches.
 - (b) For providing Trophies.
-

U. P. A. S. I. SPORTS FUND INCOME AND EXPENDITURE ACCOUNT.
1st April, 1928 to 31st March, 1929.

EXPENDITURE.		Rs.	A. P.	Rs.	A. P.	INCOME.		Rs.	A. P.	Rs.	A. P.
March 31st, 1929.	To PLANTERS' WEEK-1928.	998	12 8			April 1st, 1928.	By OPENING BALANCE.			4,491	0 4
	Amount expended.	463	12 10				Subscription a/c ..				
	Less Refunds received ..			534	15 10		Prize Fund for Presentation Bat ..			50	0 0
	To RUGBY FOOTBALL TOURNAMENT.	20	0 0				By SUBSCRIPTIONS.				
	Entrance Fee ..	120	0 0				2 Members at 150 ..	300	0 0		
	Jerseys and Stockings ..						8 Associations at 50 ..	400	0 0		
	Railway expenses of :-	367	6 0				23 Members and 1 Association at 25 ..	600	0 0		
	Anamalai Members ..						1 Member at 20 ..	20	0 0		
	High Range Members ..	260	0 0				96 Members at 15 ..	1,440	0 0		
	To CRICKET.	74	9 9	767	6 0		14 do at 10 ..	140	0 0		
	Purchase of Bats, Do. Pre-sentation Bat ..	50	0 0								
	Ground upkeep ..	300	0 0	424	9 9						

U. P. A. S. I. Sports Fund Income and Expenditure Account.—1st April, 1928 to 31st March, 1929.—(Contd.)

EXPENDITURE.		Rs.	A.	P.	Rs.	A.	P.	INCOME.		Rs.	A.	P.	Rs.	A.	P.
To GENERAL CHAR- GES.								126 Members at		5	630	0	3,530	0	0
Postage and Tele- grams ..	172	15	0												
Stationery and Printing ..	50	0	0												
Incidentals ..	38	7	0												
Insurance ..	15	4	0												
					276	10	0								
To CASH AND OTHER BALANCES															
At U. P. A. S. I. Office ..	3,847	11	9												
.. Imperial Bank, Madras, on Fixed Deposit ..	2,000	0	0												
.. Imperial Bank, Ooty, advance with Mr. Koechlin ..	69	11	0												
Advance a/c 1929 Meet ..	150	0	0												
					6,067	6	9								
TOTAL Rs. ..					8,071	0	4	TOTAL Rs. ..					8,071	0	4

B. M. BEHR, *President,*
U. P. A. S. I. Sports Club.

H. WADDINGTON, *Secretary, U. P. A. S. I.*
Treasurer, U. P. A. S. I. Sports Club.

**SOUTHERN INDIA PLANTERS'
BENEVOLENT FUND.**

*Registered under the Societies' Registration Act XXI of
1860 on the 22nd January, 1924.*

Resolution of 1909.

PASSED ON AUGUST 13, 1909.

"That in view of the great benefits a Benevolent Fund would confer on the whole Planting Community, this Association recommends the starting of a Benevolent Fund for the Planters of Southern India on the lines drawn up by its meeting, and that the Secretaries of local District Associations be requested to collect subscriptions and forward such to the Secretary, U.P.A.S.I."

**Memorandum of Association of the Southern India
Planters' Benevolent Fund.**

1. The name of the Association is the Southern India Planters' Benevolent Fund hereinafter referred to as "The Fund."
2. The objects for which the Association has been started are:—
 - (a) To give temporary assistance to members or to dependents of members who are in distress as the result of any good and sufficient cause.
 - (b) To give temporary assistance in special cases to dependents of European planters who are not members.
 - (c) Generally to make such use of the funds of the Association as will best effect the carrying out of the aforesaid objects or any of them, but in no case is it intended to provide an annual income.

Rules and Regulations of the Southern India Planters' Benevolent Fund.

- Membership.** 1. Subject to Rule 4 the following shall be entitled to membership:—
- (a) Any European Proprietor, Manager, Superintendent, Assistant or Recruiter of an Estate subscribing to a District Planters' Association which is a Member of the United Planters' Association of Southern India or who is himself a subscriber to such an Association or any European Employee of the United Planters' Association of Southern India on payment of a minimum subscription of Rs. 10 per annum.
 - (b) Any Estate subscribing to a District Planters' Association which is a member of the United Planters' Association of Southern India or any member of the United Planters' Association of Southern India on payment of a minimum subscription of Rs. 25 per annum.
- Life Membership.** 2. A donor of Rs. 200 or any member subscribing Rs. 200 within a period not exceeding five years shall be considered a Life Member and entitled to the benefits of the Fund without payment of further subscriptions.
- Patrons and Life Members.** 3. A donor of Rs. 1,000 either in one or more instalments shall be welcomed as a patron and shall be considered a LIFE MEMBER and be entitled to all benefits of the Fund, and shall not be subject to the provisions of Rule 8.
- Application for Membership and Committee rights of refusal.** 4. All first subscriptions and applications for membership shall be sent to the Secretary on a form to be prescribed by the General Committee through the Honorary Secretaries of District Planters' Associations, who shall certify that the applicant is eligible for membership under Rule 1 and the Executive Committee shall have the right of refusing any subscription and rejecting any application for membership.
- Withdrawal of Membership.** 5. Any member shall have the right of resigning his membership by giving notice in writing to the Secretary on or before the 31st March of any year provided that his subscription shall have been paid up to the 31st of March of that year.

Subscriptions
due on 1st
April.

6. All subscriptions shall be due on the 1st April each year and the Secretary or Honorary Secretaries of local Associations shall collect the same.

Subscriptions
in arrears.

7. Any member whose subscription is more than one year in arrears shall only be entitled to such benefit as is allowed under Rule 22 which restriction shall remain in force for two years after payment of such arrears.

Change of
Profession.

8. Any member except a donor of Rs. 1,000 who by reason of change in his profession or employment would not be eligible for membership under Rule 1 but wishes to retain his membership shall submit an application to remain a member to the Secretary for the decision of the Executive Committee whose decision shall be final.

Donations.

9. All subscriptions of less than the minimum laid down in Rule 1 or received from persons not eligible for membership shall be treated as donations to the Fund.

Constitution.

10. The Fund shall be administered by a General Committee composed of the Members of the General Committee of the United Planters' Association of Southern India, whose Secretary shall also be the Secretary of the Fund.

Executive
Committee.

11. The General Committee shall appoint an Executive Committee and may delegate to it any of the powers of the General Committee except those of making, altering or repealing by-laws.

Powers of
General Com-
mittee.

12. The General Committee shall have power—

- (a) to arrange for meetings of the members of the Fund and for its own meetings and to regulate the procedure at all such meetings including the system of voting and to alter such procedure;
- (b) to make, alter and repeal all such by-laws as they may deem necessary or convenient for the proper conduct and management of the Fund provided that no by-law shall be inconsistent with or shall affect or repeal anything contained in the Memorandum of Association or the Rules of the Fund.

Quorum at Meeting of General Committee. 13. At any meeting of the General Committee 7 members shall form a quorum of whom no two shall be members of the same Planters' District Association.

Trustees. 14. The Chairman and the Secretary of the United Planters' Association of Southern India shall be the Trustees of the Fund for the time being.

Vesting of Property. 15. All the property of the Fund moveable and immovable shall vest in the Trustees and all documents relating to and affecting the property of the Fund shall be taken and stand in the name of the Fund; all documents relating to the properties of the Fund shall be executed by the Trustees for and on behalf of the Fund.

Suits by and against the Fund. 16. The Fund shall sue or be sued in the name of the Secretary.

Banking. 17. All subscriptions and monies received shall be paid into a separate account with the Imperial Bank of India and it shall require the joint signatures of the Trustees to draw any money from that account.

Investments. 18. The monies of the Fund shall be invested in any investments allowed by the law for the time being in force for the investments of Trust Funds, or they may be placed in fixed deposit with the Imperial Bank of India.

Application for Assistance. 19. All applications for assistance or relief shall be made on a form to be prescribed by the General Committee and forwarded to the Executive Committee through the Secretary. Applications for assistance for employees of the United Planters' Association of Southern India shall be made direct to the Executive Committee by the Chairman of the United Planters' Association of Southern India.

Limitation of Objects. 20. No grants involving periodical payments shall in the first instance or in case of subsequent renewal be made for a longer period than six months. It shall, however, be competent for anyone in distress to apply for further relief and the Executive Committee may render such assistance if the Funds are sufficient to meet the deserving cases of first applicants. In no case shall first class passages be granted if second class are available.

Right of District Associations. 21. The Secretary of any District Association may with the sanction of his Association or Committee, give

grant emer- temporary relief in case of emergency to the extent of
 it Assist- Rs. 100 in any one case provided that the applicant for relief
 ce. is a member of the Fund or a dependent of a member.

ants to 22. Dependents of European Planters other than mem-
 h. Members. bers may receive assistance from the Fund only on the unani-
 mous recommendation of the Committee or other adminis-
 trative body of the Planters' District Association recommend-
 ing such assistance.

deal or 23. These rules may be added to, repealed, or amended
 Amendment by resolution at any General Meeting of the Fund of which
 Rules. at least three months' notice shall have been given provided
 that no such resolution shall be deemed to have been passed
 unless it be carried by a majority of at least three-fifths of the
 members voting thereon.

BY-LAWS

Confirmed at the First Annual General Meeting held at Bangalore on the 23rd October, 1924.

1. That the Annual General Meeting shall be held at the same place and at about the same time as the Annual General Meeting of the United Planters' Association of Southern India.

2. That at all General Meetings voting shall only be by Patrons and District Planters' Associations, members of the U.P.A.S.I. or their representatives and the Chairman of the U.P.A.S.I. Each Patron shall be entitled to five votes. The Chairman of the U.P.A.S.I. shall exercise the votes of the employees of the U.P.A.S.I. and such other members of the Funds as would otherwise be unrepresented. Representatives of District Associations and the Chairman of the U.P.A.S.I. shall be entitled to two votes for every Life Member represented and one vote for each ten rupees of the current year's subscription received before the date of the meeting from members represented by them.

PATRONS

The Combined Travancore Planters' Association.

The Mysore Planters' Association.

The English and Scottish Joint Co-operative Wholesale Society, Ltd.

The Yendayar Estate.

The Nenmeny and Redlynch Estates.

Mr. J. J. Murphy.

Mr. C. R. T. Congreve.

Messrs. Volkart Bros.

LIST OF LIFE MEMBERS.

Patrons under the Old Rules.

T. H. Allan & Co.	R. Mescher.
Anupura Coffee Works Co., Ltd.	J. Mackie.
Sir Fairless Barber, <i>Kt.</i>	C. A. Mackenzie.
S. Bayly.	Malayalam Plantations, Ltd.
Binny's Estates Ltd.	Mangles Bros.
Lt.-Col. C. H. Brock, O.B.E., V.D.	B. A. Marden.
Castlecroft Estate.	G. A. Marsh.
E. Sydenham Clarke.	C. L. McLean.
Colombo Commercial Co., Ltd.	Brooke Mockett.
Consolidated Coffee Estates Ltd.	Mooply V. Rubber Co., Ltd.
C. Courpalais.	Mundakayam V. Rubber Co.
H. Cuthell.	Muskal Bora Estate.
Lt.-Col. W. L. Crawford, D.S.O.	L. Newcome.
A. S. Dandison.	J. S. Nicolls.
Darragh Smail & Co., Ltd.	K. E. Nicoll.
Eddivanna Rubber Co., Ltd.	Nonsuch Estate.
D. Elkington.	G. R. Oliver.
G. P. Farley.	Peirce, Leslie & Co., Ltd.
E. T. C. Farr.	Portland Estate.
T. W. H. Fitchett.	Presidency Manure Works
R. G. Foster.	Pudukad Rubber Co., Ltd.
J. F. Fraser.	Puthuthottam Estate.
G. L. H. Gibson.	J. A. Richardson.
C. H. Godfrey.	J. H. Robinson.
C. J. Hall.	R. Ross.
E. Hall.	A. J. Saldanha & Sons.
E. H. Halliley.	Sholayar Estate.
J. G. Hamilton.	E. W. Simcock.
R. Harley.	Sir R. Stanes, <i>Kt.</i>
Harrisons and Crosfield, Ltd.	Stanmore Estate.
H. P. Hodgson.	Tea Estates India, Ltd.
Campbell Hunt.	Thodapuzha Rubber Co., Ltd.
C. St. John Ives.	Travancore Rubber Co. Ltd.
J. H. Ireland Jones.	J. R. Vincent.
Karamalai Estate.	H. Waddington.
Kerala Calicut Estates Ltd.	H. J. Walmsley.
Kinalur Rubber Co., Ltd.	Capt. E. G. Windle.
Korangamudi Estate.	Woodlands and Olánds Estates.
Kuttiadi Rubber Co., Ltd.	W. Woodman.
	B. Wolde.

REPORT
OF THE
SIXTH ANNUAL GENERAL MEETING
OF THE
SOUTHERN INDIA PLANTERS' BENEVOLENT FUND
(INCORPORATED)

Report of the Proceedings of the Sixth Annual General Meeting of the Southern India Planters' Benevolent Fund (Incorporated) held at the Mayo Hall, Bangalore, on Thursday, the 22nd August, 1929.

POSTPONEMENT.

The Annual General Meeting of the United Planters' Association being in progress at 10-30 o'clock, the meeting was postponed till its conclusion.

PRESENT.

Mr. W. A. J. Milner	... <i>Chairman</i>
Mr. R. Lescher	... <i>Retiring Chairman</i>
Mr. H. Waddington	... <i>Secretary</i>

and the following representatives of members:—

In the Anamallais	.. per Messrs. C. E. Dennys & A. W. F. Mills.
Central Travancore	.. „ Messrs. R. J. McMullin & A. R. St. George.
Coorg	.. „ Mr. J. S. H. Morgan.
Kanan Devans	.. „ Messrs. H. L. Pinches & G. R. Strachan.
Mundakayam	.. „ Mr. I. N. James.
Mysore	.. „ Mr. M. A. de Weck.
Nilgiris	.. „ Mr. A. K. Weld-Downing.
Shevaroy's	.. „ Mr. E. H. A. Travers Drapes.
South Travancore	.. „ Messrs. W. Gillespie & A. P. D. Lodge.
West Coast	.. „ Mr. H. J. Walmsley.
Wynaad	.. „ Messrs. G. Q. Archard & J. A. Gwynne.

NOTICE OF MEETING.

Under instruction from the Chairman, the Secretary read the notice convening the Meeting.

PROCEEDINGS OF THE LAST MEETING.

The Proceedings of the last General Meeting held at Bangalore on the 23rd August, 1928, and which were published in the Book of Proceedings of that year were taken as read and confirmed.

SECRETARY'S REPORT.

The Secretary read the following Report:—

Report of the Southern India Planters' Benevolent Fund for the Year 1928-1929.

"The total of subscriptions and donations received during the year, ending 31st March, 1929, was Rs. 10,422-12-7, being ten rupees more than in 1925-1926, the previous record year, when the amount included three separate donations of Rs. 1,000 each, whereas in the year just closed there has been no single payment of Rs. 1,000 although Messrs. Volkart Brothers' annual subscription of Rs. 100 totals to over Rs. 1,000 and their name is now included in the list of Patrons. There was, however, one large donation of Rs. 955 received from the Sports Club as the result of a sale of posters at a Cabaret Show. The record has, therefore, been established by the more general support by planters of the Fund, the number subscribing being 364 as against an approximate possible of 700.

Other receipts were Rs. 1,600 from the Buying Agency and Rs. 3,740 interest on investments, making a total income from all sources of Rs. 15,763 for the year. During the same time Rs. 7,152 was disbursed by way of benevolences.

The Fund is paying for the education of ten children and making grants to four widows and account an infant. For the current year, in addition to the children mentioned above, the Fund is now making grant to two widows and one infant and has recently undertaken to meet the cost of passages for an incapacitated planter, his wife and two children to Europe and to make a monthly grant for six months.

One curious development has arisen this year probably owing to a graded subscription being in force as regards the Sports Club. Ten donations of Rs. 5 have been received from planters instead of the fixed membership subscription of Rs. 10 per annum.

I take this opportunity of recording the thanks of the Executive Committee to Rev. S. B. Stephens of All-Saints, Bangalore, for the assistance he has given in connection with the payment of monthly allowances.

Subscriptions for the current year to date show a falling off of some Rs. 600 as compared with last year, but there is no reason to think that the total collected by the 31st of March next will be less than in 1928-1929.

The total of the Fund at 31st March, 1929, was Rs. 1,14,616-7-7.

H. WADDINGTON,
Secretary."

No representative or member having any remark to offer in reply to the Chairman's invitation for criticisms or suggestion on the Secretary's Report, he proposed from the Chair—

"That the Secretary's Report be adopted."

Carried.

Executive Committee.

The Chairman pointed out that under the Rules of the Fund it was necessary for the Meeting to appoint an Executive Committee and he, therefore, put the following resolution from the Chair:—

"That the Executive Committee of the U. P. A. S. I. be the Executive Committee of the Southern India Planters' Benevolent Fund with all powers of the General Committee except those of making, altering or repealing By-laws."

Carried.

Accounts 1928-1929.

The Chairman having drawn attention to all present having copies of the Accounts for 1928-1929 in their

possession, as no one wished to speak on the matter, put the following resolution from the Chair:—

“That the Accounts for 1928-1929 be passed and adopted.”

Carried.

There being no further business before the Meeting the Chairman declared the Meeting closed.

H. WADDINGTON,

Secretary.

W. A. J. MILNER,

Chairman.

**THE
UNITED PLANTERS' ASSOCIATION
OF
SOUTHERN INDIA
(INCORPORATED)**

THIRTY-SEVENTH ANNUAL GENERAL MEETING

HELD AT

BANGALORE

ON

18th, 19th, 20th, 21st and 22nd August, 1930

WITH APPENDICES.

MADRAS :
PRINTED BY THE ASSOCIATED PRINTERS
1930.

THE
United Planters' Association
OF
Southern India
(INCORPORATED)

LICENCE FROM THE GOVERNMENT OF MADRAS

Dated 22nd April, 1899

LICENCE.

Whereas "The United Planters' Association of Southern India (Incorporated)" is an Association which is registrable under the Indian Companies Act, 1882, as a Limited Company, and whereas it has been proved to the satisfaction of the Governor-in-Council that it is formed for the purposes set forth in the Memorandum of Association, and that it is the intention of the Association to apply the profits and income of the Association to promote those purposes, and that payment of any dividend to its members is prohibited by the Fourth Article of the Memorandum of Association, His Excellency the Governor-in-Council is pleased to direct under the provisions of Section 26 of the said Act that "The United Planters' Association of Southern India (Incorporated)" shall be registered with limited liability, but without the addition of the word "limited" to its name.

iii

The United Planters' Association

OF

Southern India

(INCORPORATED)

ESTABLISHED 1894, INCORPORATED 1899
REORGANIZED 1919,

District Planters' Associations Represented.

ANAMALAI PLANTERS' ASSOCIATION	..	Anamalais.
CENTRAL TRAVANCORE PLANTERS' ASSOCIATION	..	Travancore.
COORG PLANTERS' ASSOCIATION	..	Coorg.
KANAN DEVAN PLANTERS' ASSOCIATION	..	Travancore.
MUNDAKAYAM PLANTERS' ASSOCIATION	..	Travancore.
MYSORE PLANTERS' ASSOCIATION	..	Mysore.
NELLIAMPATHY PLANTERS' ASSOCIATION	..	Nelliampathies.
NILGIRI PLANTERS' ASSOCIATION	..	Nilgiris.
NILGIRI-WYNAAD PLANTERS' ASSOCIATION	..	Nilgiris.
SHEVAROY PLANTERS' ASSOCIATION	..	Shevaroyes.
SOUTH TRAVANCORE PLANTERS' ASSOCIATION	..	Travancore
WEST COAST PLANTERS' ASSOCIATION	..	Malabar, Cochin, etc.
WYNAAD PLANTERS' ASSOCIATION	..	Wynaad.

Firms & Companies who are Members.

THE ANUPURA COFFEE WORKS CO., LTD.	..	Coimbatore.
MESSRS. ASPINWALL & COMPANY, LTD.	..	Cochin.
" BAYLY & BROCK, LTD.	..	Donnington, Nilgiris
" BINNY'S ESTATES, LTD.	..	Madras.
" BOMBAY-BURMAH TRADING CORPORATION LTD.	..	Bombay.
" BURMAH-SHELL OIL STORAGE & DISTRIBUTING CO. OF INDIA LTD.	..	Madras.
" THE CHILEAN NITRATE COMMITTEE.	..	Calcutta.
" DARRAGH & SMAIL & COMPANY, LTD.	..	Alleppey.
" ENGLISH & SCOTTISH JOINT CO-OPERATIVE WHOLESALE SOCIETY, LTD.	..	Calicut.
" ESTATES & AGENCY CO. LTD.	..	Coonoor.
" HARRISONS & CROSFIELD, LTD.	..	Quilon.
" IMPERIAL CHEMICAL INDUSTRIES INDIA LTD.	..	Madras.
" THE MADURA CO., LTD.	..	Cochin.
" MARSHALL SONS & CO. (INDIA), LTD.	..	Madras.
" PARRY & COMPANY, LTD.	..	Madras.
" PEIRCE, LESLIE & COMPANY LTD.	..	Calicut.
" T. STANES & COMPANY, LTD.	..	Coimbatore.
" TEA ESTATES INDIA LTD.	..	Coimbatore.
" THE UNITED COFFEE SUPPLY CO. LTD.	..	Coimbatore.
" VOLKART BROTHERS	..	Tellicherry.

Executive 1930-1931.*Chairman.*—MR. C. R. T. CONGREVE.*Planting Member.*—MR. F. E. JAMES, M.L.C.**Executive Committee.***The Chairman ex-officio.* *The Retiring Chairman ex-officio.**Member.**Members-in-Waiting.*

TEA	MR. J. S. B. WALLACE.	MR. R. N. W. JODRELL.
COFFEE	" A. E. J. NICOLLS.	" E. H. A. TRAVERS-DRAPES.
RUBBER	" H. J. WALMESLEY.	" W. GILLESPIE.
LABOUR	} " A. J. WRIGHT	" P. A. NAYLOR.
DEPT.		

General Committee.

The members of the Executive Committee exclusive of the members-in-waiting and two representatives nominated by each District Association as they may from time to time appoint.

Secretary.—MR. H. WADDINGTON, Madras.*Director, Labour Dept.*—LT.-COL. C. H. BROCK, O.B.E., V.D.,
Ootacamund.**Honorary Members of the Madras Chamber of Commerce**

1919 ..THE SECRETARY.

1918-1919..MR. A. H. MEAD.

Representatives on the Indian Tea Cess Committee.

1930 ..MR. J. S. B. WALLACE.

1929-1930..MR. H. L. PINCHES.

1928-1929..MR. A. C. COTTON.

1919-1928..MR. H. L. PINCHES.

1914-1919..SIR FAIRLESS BARBER.

1911-1914..MR. J. CARSON PARKER.

1904-1911.. " GORGE ROMILLY.

1903-1904.. " G. L. ACWORTH.

**Representatives on the Legislative Council,
Fort St. George, Madras.**

1929 ..MR. F. E. JAMES, M.L.C.

1926-1929.. " C. R. T. CONGREVE, M.L.C.

1925-1926..CAPT. E. G. WINDLE, M.L.C.

1922-1925..MR. C. R. T. CONGREVE, M. L. C.

1919-1922.. " J. A. RICHARDSON, M. L. C.

1912-1919..HON'BLE SIR FAIRLESS BARRER.

1909-1912..HON'BLE MR. J. G. HAMILTON.

1908-1909..HON'BLE " C. E. ABBOTT.

1904-1908..HON'BLE " H. P. HODGSON.

1900-1904..HON'BLE " G. L. ACWORTH.

1896-1900..HON'BLE " H. P. HODGSON.

1893-1896..HON'BLE " G. ROMILLY.

Former Chairmen and Vice-Chairmen.

<i>Chairmen.</i>	<i>Vice-Chairmen.</i>
1894-1895.. MR. DIGBY T. BRETT.	MR. G. R. EVANS.
1895-1896.. " W. H. SPROTT.	" J. W. HOCKIN.
1896-1897.. " G. L. ACWORTH.	" J. G. HAMILTON.
1897-1898.. " GEO. ROMILLY.	" H. G. PARSONS.
1898-1899.. " GEO. ROMILLY.	" J. C. ABBOTT.
1899-1900.. " W. H. SPROTT.	" J. W. HOCKIN.
1900-1901.. " H. P. HODGSON.	" A. LAMBERT.
1901-1902.. " ROBERT GOMPERTZ.	" J. A. HARRIS.
1902-1903.. " J. A. HARRIS.	" E. G. WINDLE.
1903-1904.. " GEO. ROMILLY.	" O. SCOTT-SKIRVING.
1904-1905.. { " H. M. KNIGHT.	} " G. K. MARTIN.
1905-1906.. { " G. K. MARTIN.	
1906-1907.. { " W. H. SPROTT.	} " C. E. ABBOTT.
1907-1908.. { " J. A. HARRIS.	
1908-1909.. { " AYLMER FF. MARTIN.	} " AYLMER FF. MARTIN.
1909-1910.. { " C. E. ABBOTT.	
1910-1911.. { " J. G. HAMILTON.	} " J. G. HAMILTON.
1911-1912.. { " J. A. RICHARDSON.	
1912-1913.. { " J. A. RICHARDSON.	} " J. A. RICHARDSON.
1913-1914.. { " R. D. TIPPING.	
1914-1915.. { " C. H. BROCK.	} " BERNARD MALCOLM.
1915-1916.. { " HON. MR. J. G. HAMILTON.	
1916-1917.. " C. E. ABBOTT.	" C. H. BROCK.
1917-1918.. " C. E. ABBOTT.	" E. F. BARBER.
1918-1919.. " E. L. MAHON.	" A. FF. MARTIN.
1919-1920.. " E. L. MAHON.	" E. L. MAHON.
1920-1921.. " E. A. HUGHES.	" E. A. HUGHES.
1921-1922.. " E. A. HUGHES.	" E. A. HUGHES.
1922-1923.. " W. L. CRAWFORD.	" W. L. CRAWFORD.
1923-1924.. " J. A. GRAHAM.	" J. A. GRAHAM.
1924-1925.. " C. H. BROCK.	" C. H. BROCK.
1925-1926.. " H. WADDINGTON.	" H. WADDINGTON.
1926-1927.. " J. S. NICOLLS.	" J. S. NICOLLS.
1927-1928.. " P. G. TIPPING.	" P. G. TIPPING.
1928-1929.. " C. E. ABBOTT.	" C. E. ABBOTT.
1929-1930.. " P. G. TIPPING.	" P. G. TIPPING.
	" C. LAKE.
	" A. H. MEAD.
	" A. S. DANDISON.
	" C. R. T. CONGREVE.
	" H. L. PINCHES.
	" J. A. GWYNNE.
	" R. FOWKE.
	" A. C. COTTON.
	" R. LESCHER.
	" W. A. J. MILNER.

Registered Office:—Parry's Buildings, North Beach, Madras.

HEAD OFFICE:—MERCANTILE BANK BUILDINGS, 1st LINE
BEACH, POST BOX No. 155, MADRAS.

AUDITORS:—MESSRS. FRASER & ROSS, No. 17, Armenian Street,
Madras.

BANKERS:—THE IMPERIAL BANK OF INDIA, MADRAS.

SOLICITORS:—MESSRS. KING & PARTRIDGE, MADRAS.

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The United Planters' Association

OF

Southern India

(INCORPORATED)

THIRTY-SEVENTH ANNUAL GENERAL MEETING.

The Thirty-seventh Annual General Meeting of the United Planters' Association of Southern India (Incorporated) opened at 2-30 p.m. on Monday, the 18th August, 1930, at the Mayo Hall, Bangalore.

The following were present:—

MR. W. A. J. MILNER	..	Chairman.
MR R. FOWKE	..	Ex-Chairman.
MR. F. E. JAMES, O.B.E., M.L.C.,	..	Planting Member.
MR. C. R. T. CONGREVE	}	Members of the Executive Committee.
MR. P. G. TIPPING		
LT. COL. C. H. BROCK, O.B.E., V.D.		Director, Labour Department.
DR. W. S. SHAW, PH.D., M.SC., A.I.C.	}	Tea Scientific Officer.
MR. K. B. W. JONES, A.R.C.SC., B.SC.		
MR. W. W. MAYNE, B.SC.	..	Coffee Scientific Officer.
MR. G. N. FRATTINI	}	Officer-in-charge of Rubber Exp. Station.
MR. H. WADDINGTON		
MR. E. L. HILL	..	Secretary.
MR. E. L. HILL	..	Asst. Secretary.
Messrs. The Anupura Coffee Works Co., Ltd.; Bayly & Brock Ltd., & Peirce, Leslie & Co., Ltd.	}	PER MR. W. J. CAMPBELL.
.. Aspinwall & Co., Ltd.		
.. Bombay-Burmah Trading Corporation, Ltd.	}	.. MR. T. DAVENPORT.
.. Burmah-Shell Oil Storage & Distributing Co. of India Ltd.		
.. The Chilean Nitrate Committee.	}	.. MR. J. C. HUNTER.
..		
..	}	.. MR. ERIC B. WILSON.
..		

Messrs. The English & Scottish Joint Co-operative Wholesale Society Ltd.	} per Mr. R. FOWKE.
„ Estates & Agency Co., Ltd.	„ Mr. H. S. CAMERON.
„ Harrison & Crosfield Ltd.	„ Mr. R. AINSWORTH.
„ Imperial Chemical Industries (India) Ltd.	} „ Mr. C. D. PRIESTLEY.
„ Madura Co., Ltd.	.. „ Mr. W. H. CURRIE.
„ Marshall Sons & Co. (India) Ltd.	} „ Mr. E. P. DUCKWORTH.
„ Parry & Co., Ltd.	{ „ MESSRS. J. S. W. HENDERSON & W. A. HATTON.
„ Tea Estates India Ltd.	.. „ Mr. W. H. MILLAR.
„ T. Stanes & Co., Ltd.	.. „ Mr. J. A. HOOD.

And the following representatives of Associations.

Anamallais	.. MESSRS. T. DAVENPORT, & W. H. MARTIN.
Central Travancore	.. MESSRS. J. H. CANTLAY & H. CLARKE.
Coorg	.. { Mr. A. E. J. NICOLLS & LT.-COL. H. F. MURLAND.
Kanan Devans	.. { MESSRS. A. J. WRIGHT, H. C. BOYD, & J. S. B. WALLACE
Mundakayam	.. { MESSRS. O. J. EGAN WYER, N. B. HARTLEY & G. McPHERSON.
Mysore	.. { MESSRS. E. W. FOWKE, S. H. DENNIS & R. C. MORRIS.
Nelliampathies	.. Mr. E. G. CAMERON.
Nilgiris	.. { MESSRS. C. L. GREIG, J. B. VERNEDE & H. S. CAMERON.
Nilgiri-Wynaad	.. { MESSRS. R. FOWKE, A. R. INNES & G. W. FULCHER.
Shevaroy	.. { CAPT. E. H. A. TRAVERS DRAPES & MR. P. V. BRISCOE.
South Travancore	.. Mr. W. GILLESPIE.
West Coast	.. { MESSRS. H. J. WALMESLEY & T. W. H. FITCHETT.
Wynaad	.. MESSRS. R. N. W. JODRELL & G. BAYZAND.

VISITORS.

The Hon'ble Lt.-Col. R. J. C. Burke, Resident in Mysore & Chief Commissioner of Coorg.	H. H. Rama Varma, the Maharaja of Travancore.
H. H. Sri Kantirava Narasimharaja Wodiyar, G.C.I.E., the Yuvaraja of Mysore.	Amin-ul-Mulk Sir Mirza M. Ismail, C.I.E., O.B.E., Dewan of Mysore.

VISITORS.—*contd.*

A. N. L. Carter, Esq., C.I.E., I. C. S., Agent to the Governor-General, Madras States. Dr. Leslie C. Coleman, M.A., Director of Agriculture in Mysore.

G. H. Cooke, Esq., M.C. I.C.S., Collector of the Civil & Military Station, Bangalore. G. R. Hilson, Esq., Director of Agriculture, Madras.

Rajkumar C. Desaraja Urs. Dr. H.E. Watson of the Indian Institute of Science, Bangalore.

Sir Charles Todhunter, K.C.S.I., Private Secretary to H. H. the Maharaja of Mysore. P.C. Dutt, Esq., I. C. S., Administrative Tutor to H. H. the Maharaja of Travancore.

F. P. Desaraja Urs, Private Secretary to the Yuvaraja of Mysore.

Mr. J. C. Blackham.	Mr. H. O. Lee.	Mr. E. W. Rutherford.
Mr. J. M. Bridgman.	Mr. R. O. Oliver.	Mr. F. G. V. Travers
Mr. H. Clement-Davies.	Mr. W. B. Page.	Mr. V. L. Wynyard
Mr. A. deStroumillo.	Mr. V. D. Parsons.	Mr. V. L. Wright.
Mr. H. H. English.	Mr. D. N. Pitcairn.	Mr. W. R. Wright.
Mr. K. F. Frenchman.	Mr. I. S. Rudd	
	Clarke.	

And the following ladies:—

Mrs. R. Ainsworth.	Mrs. E. W. Fowke.	Mrs. A. E. J. Nicolls.
Mrs. G. Bayzand.	Mrs. R. Fowke.	Mrs. C. D. Priestley.
Mrs. J. C. Blackham.	Mrs. E. L. Hill.	Mrs. J. B. Vernede.
Mrs. C. H. Brock.	Mrs. F. E. James.	Mrs. Waddington.
Mrs. W. J. Campbell.	Mrs. Jodrell.	Mrs. J. S. B. Wallace.
Mrs. C. Coleman.	Mrs. G. McPherson.	Mrs. H. E. Watson.
Mrs. T. Davenport.	Mrs. W. H. Martin.	Mrs. A. J. Wright.
Mrs. Clement-Davies.	Mrs. Milner.	Mrs. W. R. Wright.
Mrs. H. H. English.	Miss Moore.	

First Day, Monday, 18th August 1930, 2-30 P.M.

The Chairman, Mr. W. A. J. Milner, in asking His Highness the Yuvaraja of Mysore to open the meeting said:

Your Highness and Gentlemen,—I have, on behalf of this Association and the planters present, to express very great appreciation at the honour Your Highness has done us in consenting to open our meeting to-day, and we extend to you our most hearty welcome. We also welcome His Highness the Maharaja of Travancore and other distinguished visitors who are present.

His Highness the Yuvaraja of Mysore.—Mr. Chairman and Gentlemen,—It gives me a very great pleasure to declare this meeting open. (Applause).

The Chairman.—Gentlemen, the first item of business on the Agenda is the Executive Committee's Report which has been circulated and copies of which you all have. I propose to take it as read.

EXECUTIVE COMMITTEE'S REPORT.

I. THE U. P. A. S. I.

1. Membership. The number of District Planters' Associations, members of the Association, remains unaltered at thirteen. Since last report was issued Messrs. Imperial Chemical Industries (India) Limited and Messrs. The Estates and Agency Company Limited, have joined as Company members making the total twenty.

2. Acreage. Extensions under Tea last year were considerably less than the average of the previous three years. The acreage under Tea supporting the Association increased during the year by 7,413 acres, while that under Rubber and Coffee decreased by 1,273 acres and 2,492 acres respectively. The total area supporting the Association increased from 215,573 to 219,210 acres.

The area of each product, in the different Districts, is shown in the following statement of the acreage, subscribing as at 1st July 1930:—

Acreage Subscribing to U. P. A. S. I. on 1st July, 1930.

Associations.	Tea.	Rubber.	Coffee.	Cardamoms.	Cinchona.	Pepper.	Total.
Anamallais ..	22,973	..	2,088	2,752	187	..	28,000
Can. Travancore ..	22,564	..	..	80	..	..	22,644
Coorg ..	415	..	13,483	10	..	..	13,908
Kanan Devans ..	28,607	25	565	572	47	..	29,816
Mundakayam ..	2,874	12,862	..	..	..	..	15,736
Mysore ..	2,945	135	16,636	432	..	..	20,148
Nelliampathies ..	273	198	2,416	421	1	..	3,309
Nilgiris ..	9,630	210	3,041	69	..	..	12,950
Nilgiri-Wynaad ..	12,308	..	3,711	..	..	..	16,019
Shevaroy ..	..	170	4,610	..	..	..	4,780
S. Travancore ..	7,953	13,967	..	..	..	..	21,920
West Coast ..	..	18,691	..	..	..	..	18,691
Wynaad ..	10,894	60	255	..	..	80	11,289
	121,436	46,318	46,805	4,336	235	80	219,210

3. Articles of Association. In accordance with a resolution passed at the Annual Meeting in August 1929, the Articles were in December amended so that in the event of the Planting Member being a salaried officer of the Association, the next preceding Chairman of the Association resident in India and able and willing to act shall be an ex-officio member of the Executive Committee in his stead.

At the Budget Meeting of the General Committee of the U.P.A.S.I. held on the 27th February 1930, it was resolved to reduce the subscription of all products by two annas per acre, but owing to previous reductions, the rates of subscription on Tea and Coffee were already as low as permitted under the Articles of Association. It has, therefore, become necessary to amend the Articles again and this will come up for final decision at an Extraordinary General Meeting to be held on the 18th August before the commencement of the Annual General Meeting, the proposal is to amend the Articles in such a way that subscriptions can be raised or lowered in respect of any particular product by such amount as the General Committee think fit.

4. Rights of Members. The following point was submitted to Messrs. Sanderson & Company, Solicitors, Calcutta, for opinion:—In the event of loss occurring owing to the suspension, at the request of a District Association, of benefits derived from the departments of the U.P.A.S.I. by a member of that District Association, which would be liable for damages, the District Association under whose instructions the benefits are suspended or the U.P.A.S.I. which had suspended the benefits? Messrs. Sanderson & Company were of opinion that if any liability in damages to the individual Member of the District Association exists, the liability lies with the District Association.

5. Executive Committee. Since the date of the last Meeting, there have been several changes in the personnel of the Executive Committee. Under the authority of the Articles of Association as amended, Mr. R. Lescher, ex-Chairman, joined the Committee, but going Home on leave in April his place was taken by Mr. R. Fowke, the previous Chairman. In February, Mr. A. J. Wright was elected as member for the Labour Department in succession to Mr. G. R. Strachan. In May, Mr. H. L. Pinches, active member for Tea, retired and

his place was taken by Mr. C. R. T. Congreve, the vacancy as member-in-waiting for Tea was filled by Mr. J. S. B. Wallace who was co-opted by the remaining members of the Executive Committee under Article No. 22.

6. Meetings. During the year there were two Extraordinary General Meetings of the Association in connection with the alteration of the Articles of Association. The General Committee held three meetings and the Executive Committee met six times.

7. Staff. In January 1930, Mr. C. Latham resigned and the post of Assistant Secretary remained vacant until June, when Mr. E. L. Hill took up the duties of the post.

8. Accounts. The Budget for the year ending 31st March 1930 estimated for a surplus of Rs. 28,838 Income over Expenditure, but the final accounts show an excess of Rs. 59,025 or Rs. 30,187 more than anticipated. This is made up of—

Unexpended on Scientific Department	Rs.	7,636
Do. Labour Department	„	20,455
Excess of Income over estimate	„	7,134
		<hr/>
	„	35,225
Less overspent on unforeseen items	„	5,038
		<hr/>
	„	30,187

An innovation has been introduced into the accounts this year, at the instigation of the Registrar of Joint Stock Companies, by which the original cost of Buildings is shown and the total depreciation to date.

9. Buildings and Land. The Labour Superintendent's bungalows at Mysore and Coimbatore were completed at a cost of Rs. 29,731-7-6 during the year.

10. Work at the Head Office. The number of letters received during the year was 8,088 and the number despatched 12,400. These figures do not include any correspondence connected with the "Planters' Chronicle."

11. The European Employees' Provident Fund. The number of members is fifteen and the total of the Fund at

31st March 1930 was Rs. 1,18,658-1-5, the greater part of which is invested in British War Loan and Government of India 5 per cent 1945/55 Bonds.

12. The Indian Employees' Provident Fund. This Fund now has 131 members, the total of the Fund at 31st March 1930 was Rs. 23,610-14-10 invested in P. O. Certificates and Government of India Bonds of 1945/55.

13. The Planters' Chronicle. From the number issued on the 11th January 1930, Mr. F. E. James, Planting Member, took over the editorship and management of the paper which ceased from the 1st February to be published weekly and became a fortnightly journal. While Mr. James will for some time longer continue the editorship, the management will be undertaken by the Assistant Secretary. The profit earned for the year 1929-30 was Rs. 1,634-14-10.

14. The Planting Directory of Southern India. The previous edition having become very much out of date a fifth edition with the information brought up to date was issued in March 1930.

15. Southern India Planters' Benevolent Fund. Although the amount of subscriptions and donations was some Rs. 1,500 less than the year previous, the number of planters supporting the Fund was higher than before as also was the amount distributed by way of grants and benefits which totalled Rs. 12,350 or over Rs. 2,000 more than in any previous year. The total at the credit of the Fund on the 31st March 1930 was Rs. 1,15,784-12-8.

16. U. P. A. S. I. Buying Agency. This Agency continues its popularity, there now being 435 members. The excess of income over expenditure Rs. 1,626-15-6 was as usual transferred to the credit of the Benevolent Fund.

17. U. P. A. S. I. Sports Club. The Club at the 31st March had a balance at credit of Rs. 3,002-5-10 of which Rs. 2,070-3-0 was on Fixed Deposit with the Imperial Bank of India.

II. AFFILIATED ASSOCIATIONS.

1. The South Indian Association in London. We have continued to receive assistance on all matters in which

the Association was concerned at Home from the South Indian Association. It is a pity that Association is not more generally supported by members of the U.P.A.S.I. Although approximately 80 per cent. of the area under Tea and Rubber subscribing to the U.P.A.S.I. also supports the South Indian Association, less than 18 per cent. of the area under Coffee does so, although the subscription ordinarily is but 1d. per acre and for the present has been reduced to half that amount. Mr. J. Mackie has been re-elected Chairman for the current year.

2. The Rubber Growers' Association. The Rubber Advisory Committee of the United Planters' Association acts as the Southern India Branch of the Rubber Growers' Association.

3. The Indian Tea Association. The U.P.A.S.I. and the I.T.A. have continued to work in consultation with each other on all matters which affect both Associations.

4. The Indian Tea Cess Committee. Mr. Carl Reid of Messrs. Harrisons & Crosfield, Ltd., Calcutta, who has since 1924 represented the Madras Chamber of Commerce on the Indian Tea Cess Committee, resigned on going Home in December 1929 and his place was taken by Mr. H. L. Puttock of the same firm. Mr. H. L. Pinches represented this Association until his retirement in May 1930. We have not yet received a request to nominate a successor.

Mr. Harpur, the Commissioner for India, at the Meeting of the Committee held in March last stated that 56½ million pounds of tea were consumed in India for year ending 31st March 1929 and that the figures up to the end of January 1930 exceeded those of the previous year by 4 million pounds. At the same meeting it was resolved that in 1930-31 £50,000 should be expended on advertising Indian Tea in the United States; £10,000 for advertising in Germany; Rs. 7¼ lakhs for work in India. A proposal to expend £10,000 in England was turned down in favour of devoting further energy to the work in India.

5. The Employers' Federation of Southern India. The U.P.A.S.I. continues a member of this Federation which, in order to increase its usefulness to members, has recently engaged the services of an Assistant Secretary.

6. Lady Ampthill's Nurses Institute and the South Indian Nursing Association. No other suitable site being available it was decided to purchase the present buildings and land at the Western Castlet, Mount Road, and negotiations have been completed with Government to effect this. It has also been decided to accept an offer received for the property now known as the Fir Grove Hotel at Ootacamund.

7. European Association. From the revised list of Members of the Madras Branch of the European Association it appears that there are some 450 planting members in the Madras Presidency and the adjacent Indian States.

III. LEGISLATION.

1. General Election. The Legislative Council was dissolved on the 18th June 1930 and preparations are now in hand for the General Elections which will be held on the 9th September, the last day for making nominations being the 1st August.

2. Electoral Rolls. The Electoral Roll of the Madras Planters' Constituency was completed on the 7th October 1929, the total number of voters registered being 620 as compared with 556 in the roll of 1926.

3. Act III of 1918—The Madras Prevention of Adulteration Act. In order to enforce the provisions of this Act it was necessary for the Madras Corporation to appoint four Inspectors; this was done in April. It was then necessary to obtain delegation of powers from the Government to the Inspectors and on the 23rd May, Government issued a notification regarding the rules in connection with such delegation of powers.

4 Act II of 1914—The Destructive Insects and Pests Act. Under this Act the Governor-General in Council may by notification prohibit or regulate the import into British India of any article or class of articles likely to cause infection to any crop. "Import" is defined in the Act as bringing or taking by sea or land. In view of the great advance in aviation, since the Act was passed, an amending Bill was introduced in the Council of State on the 10th March 1930, to alter the reading of the definition of "Import" to "bringing or taking by sea, land or air." An Act to this effect

was duly passed by the Council of State and the Legislative Assembly.

5. Madras District Municipalities' and Local Boards' Acts. On the 24th February, Acts were passed amending the Madras District Municipalities' Act and the Local Boards' Act. The chief point of interest to planters is the alteration made in the assessment of Companies Tax, instead of the basis, as was the case under the old Acts, being the Capital of Companies the tax will in future be levied on profits and in the case of Branches where actual profit is not ascertainable, on a percentage of the turnover. These changes go some way to meet the hardships which were caused under the original Acts in case of Branches which doing little business were nevertheless taxed on the total capital of the Company to which they belonged.

6. Act X of 1929—The Indian Census Act. This Act to provide for certain matters in connection with the taking of the Census in 1931 was passed by the Legislative Assembly and received the assent of the Governor-General on the 1st October 1929. As usual it gives local Governments power to call upon, among others, all owners and occupiers of land, on which at the time of the taking of the census not less than twenty persons are living on or in such property; to perform such of the duties of a Census-Officer as may be required by any District Magistrate, under penalty for refusing or neglecting to perform such duty of punishment extending to one month's simple imprisonment or fine not exceeding Rs. 200, or both.

7. Act VIII of 1923—The Workmen's Compensation Act. In the Annual Report on the working of the Workmen's Compensation Act during 1929, the following cases in Estate factories came under the review of the Commissioner: In the Anamallais four cases, in the Nilgiris five cases and in the Nilgiri-Wynaad three cases, all of these were of temporary disablement.

8. Act XII of 1929—The Indian Income-Tax (Provident Funds Relief) Act. In the report made last year the proposals of Government in respect to relief of taxation on private Provident Funds were explained. On the 1st October 1929 the Indian Income-tax (Provident Funds Relief) Act received the assent of the Governor-General in

Council and the question as to whether the U.P.A.S.I. European and Indian Provident Funds should be registered as provided for in the Act has been submitted to the Solicitors of the Association.

9. The Indian Statutory Commission. The first and second volumes of the Report of the Simon Commission were received in India on the 10th and 24th June respectively, but the supplies available have fallen far short of the demand. A valuable summary of the recommendations has been circulated to District Associations by the Planting Member but the Association has not yet had any opportunity of considering the Report in detail.

IV. DUTIES AND TAXES.

1. Water Tax. In October it was brought to the notice of the Association that a new tax was being demanded from estates in planting districts in respect to all water, taken from streams and rivers running through estates, for any purpose other than domestic use. Water taken for pulping coffee was assessed at a minimum of Rs. 50 per annum, but in one case of a tea estate, the claim made was Rs. 25 per diem. The matter has been referred to the Association's Solicitors in regard, firstly, to the riparian rights of planters to use the water from streams running through their estates and, secondly, as to whether sixty years undisputed use of water from such sources does not set up a bar to Government now claiming to introduce a new right of assessment.

2. Depreciation Allowance in Respect to Ropeways. The Central Board of Revenue have published for information of those concerned a proposal to amend the Income-tax Act in order to permit of an annual depreciation on Ropeway ropes of 25 per cent. and on Ropeway structures to 5 per cent. Any objection or suggestion should reach the Central Board of Revenue on or before the 25th August.

V. COMMUNICATIONS.

(B) RAILWAYS.

1. General. Early in the year the Railway Board issued a communique explaining that under existing conditions it is unlikely that funds for capital expenditure on railways, in the near future, will be obtainable, except at

rates of interest substantially higher than those at which they have been procurable in recent years. The Board is therefore concentrating on pushing schemes already in hand to completion and does not contemplate undertaking any new schemes during the current year or next year. It did not expect to construct more than 300 miles of new lines during 1930-31.

2. South Indian Railway Advisory Committee. On the re-organisation of the South Indian Railway Advisory Committee in November 1929, the Secretary was nominated as the Association's representative.

3. Shoranur—Ernakulam. On the 12th December 1929, the Chairman and a small deputation of members of the Executive Committee presented an Address to His Excellency the Viceroy urging the speedy conversion of the Cochin State Railway from metre to broad gauge.

4. Pudukkottai—Manamadurai. This section has just been finished and was opened for traffic from the 1st July, thus completing the new chord line from Trichinopoly to Manamadurai and effecting a saving of 33 miles in distance, while connecting the Pudukkottah State for the first time with the main railway system of Southern India.

5. Pollachi—Palghat. Work on this line, *via* Kollengode, is still in progress and it is hoped that the line may be opened early next year.

6. Rail-freight on Copper Sulphate. Under advice of the Chief Commercial Superintendent of the South Indian Railway, the Association made representations to the Indian Railway Conference Association at Allahabad urging that Copper Sulphate be brought within the same classification as manures, for the purpose of fixing railway rates. A similar proposal had been referred to the Committee by the Mysore Railways, but in reply the Association was advised that the Committee of the Railway Conference Association do not recommend alteration in the existing classification of copper sulphate.

7. The European Mails. In March the Madras and Southern Mahratta Railway introduced a new fast express, which leaving Madras at 8 a.m. on Friday mornings reaches Bombay at 10-10 a.m. on Saturday mornings, in time to

enable passengers to catch the outward mail boats. The Railway was given to understand that all European mails would be carried by this train, but the Postmaster-General, on the grounds of extra expense, refused to take advantage of the accelerated service with the exception of the through mails from Ceylon and stations South of Madras. Great indignation was felt at this want of consideration for stations in the mofussil on the West Coast and Nilgiris. Constant agitation has been maintained and the Postmaster-General gave way and as from 11th July 1930 the outward mails have been carried by the new express, and fortnightly, in the week in which the special European Mail train does not run, the inward mails will be carried by the corresponding express leaving Bombay at 1 p.m. on Fridays and reaching Madras at 3-45 p.m. on Saturdays. The new arrangement means that all stations on the West Coast, Wynaad, Nilgiris and Shevaroy's can post one day later than previously and that the inward mails should once a fortnight reach those stations one day earlier than hitherto.

(C) ROADS.

1. Road Board. At the last Annual Meeting a resolution was passed urging that the Government of Madras be asked to nominate a representative of the U.P.A.S.I. on the Madras Presidency Road Board. This was done and the request was at once acceded to. Mr. C. R. T. Congreve on being selected as the Association's representative was appointed by G. O. No. Mis. 5141 L. & M., dated the 12th November 1929.

2. Indian Road Development Committee. On the occasion of the visit of the Viceroy to Madras, a small deputation from the U.P.A.S.I. headed by the Chairman presented an address in which it was urged that every effort be made to put into effect as soon as may be possible the recommendations of the Indian Road Development Committee.

3. Nelliampathy Ghat Road. In accordance with a resolution passed at the last Annual Meeting, the Diwan of Cochin was advised of the satisfaction, with which the U.P.A.S.I. had learned of the sanctioning of the construction of a new ghat road to the Nelliampathies, and he was urged to push forward construction of the road as quickly

as possible. Since October 1929 good progress has been made, of the total length of 11 miles, the first half is nearing completion, and it is expected that the road will be finished and opened during 1931.

4. Roads—Coorg to West Coast. The Secretary to Government of Madras for the Public Works Department was addressed, pointing out that, although there had been improvement made to many of the culverts on this road since 1924, when the Association first took up with Government the question of putting roads from Coorg to the West Coast in such order that they would be capable of carrying heavy motor traffic, as long as there remains one incapable of carrying a five-ton lorry, no use can be made of the Road for such traffic and urging that all bridges and culverts on the road should be sufficiently strengthened, as soon as possible. In its reply the Department advised the Association that the question of strengthening the Iritty, Nerumpuzha, Erinjolly, Uliyil, Karetta and Kallarodai Bridges is under consideration and that it is intended to commence work on a new bridge immediately after the close of the South-West Monsoon somewhat lower down the river than the present one at Iritty, which will enable the span to be shortened.

5. Karvanuth—Kodaikanal Road Station. Good progress has been made on the reconstruction of this road which should be completed in December next, but there are already signs that the first part of the road which was remade is again likely to wear into pot holes unless better work is done by way of upkeep, and now that the re-making of the road is nearing completion, Government should be urged to take it over as a trunk road to be worked under the P. W. D., otherwise it is probable that much of the money now being spent on the road will be wasted.

6. Nadghani Ghat. This ghat road has again been opened to vehicular traffic but is not in a fit condition to carry buses or lorries.

7. Nilgiri Ghat Roads. The main artery of the district, the Mettupalayam—Coonoor ghat has been kept in good order, but was at times blocked to traffic during the North-East Monsoon and Government has under considera-

tion the question as to whether the Gudalur and Kotagiri ghats should not be taken over by the P.W.D.

8. Charmady Ghat. An estimate totalling Rs. 1,12,000 for the repairs of this ghat and road to the West Coast was sanctioned in February 1930, but it was found impossible to vote funds for the purpose during the current financial year.

VI. GENERAL.

1. The Royal Commission on Labour in India. A special Committee was set up to draft a Memorandum on the Questionnaire received from the Commission, and after it had been slightly amended by the Executive Committee, it was despatched to the Commission on 11th December, 1929.

Before the arrival of the Commission, the Association wrote the Government of Madras and the Royal Commission asking that someone, with planting experience, should be appointed as an Assistant Commissioner, at the time the matter of labour on plantations was being enquired into, and were then invited to recommend suitable persons which it did. However on arrival in the Madras Presidency only two Assistant Commissioners were appointed, Mr. K. Kay of Messrs. Binny & Co., Ltd., to represent employers and Mr. B. Shiva Rao as representative of labour. The Commission finding however that Mr. Shiva Rao had no experience of either planting districts or labour conditions on estates did not take him with them, when members of the Commission visited planting districts.

The members of the Commission arrived in Madras on the 1st March, and on the 6th idem, Messrs. H. L. Pinches, C. R. T. Congreve, Sir Fairless Barber and Lt.-Col. C. H. Brock gave evidence in support of the Memorandum submitted by the Association.

On concluding its work in Madras the Commission divided into two parties, one going to Coorg, another to the Nilgiris and the Anamallais, in order to study condition of labour on estates in the planting districts of Southern India.

2. Labour Conditions. Certain sections of the Madras Press, under Indian management, about the end of

last year intensified their campaign of vilification regarding conditions under which labour works on estates and the Association therefore willingly accepted the offer of Mr. C. V. Venkataramana Aiyengar of Coimbatore to visit planting districts and investigate matters. He has for many years been interested in the matter of estate labour on the Anamalais, and during the early months of 1930 he toured the Anamalais, Nilgiris, Nilgiri-Wynaad and Kanan Devans making reports as to what he saw and stating his conclusions drawn therefrom. The Association have had these reports printed in pamphlet form and distributed copies to those interested.

3. International Labour Conference, Geneva. This year's session opened at Geneva on the 6th June 1930, the two items on the Agenda were: (1) Forced Labour, which does not interest planters in Southern India and (2) Hours of work of salaried employees. The fixing of hours of work for all salaried employees, overseers, engine drivers, tea makers, motor drivers, etc., appears quite unnecessary and the Associated Chambers of Commerce have already recommended that the Government of India should not endorse any convention or recommendation that may be made by the Conference. However the Labour Conference adopted by 78 votes to 31, a draft Convention, providing for an eight hours day and a forty-eight hours week for salaried employees, although we have yet to learn what salaried employees, it is proposed, should come within the Convention.

4. Auxiliary Forces Advisory Committee. The Association put forward the names of Lt.-Col. C. H. Brock, O.B.E., V.D., and Mr. A. V. Danagher as members of the Auxiliary Forces Advisory Committee for the Nilgiris, Coimbatore and the West Coast area including Travancore and Cochin, with Headquarters at Coimbatore.

5. Import Duty on Copper Sulphate. The resolution passed at the Annual Meeting in 1929 urging that Copper Sulphate, imported for purely agricultural purposes, be exempted from import duty, was forwarded to the Government of Madras, with the request that, if no further communication had been received from the Government of

India, since they advised the Association that they were awaiting the decision of the Tariff Board, a copy of the resolution might be sent to that Government. The Government of Madras replied saying they had received no further information and had forwarded the resolution to the Central Government. Hearing nothing more, the member of the Legislative Assembly for the European Constituency was asked to take the matter up with the Government of India, at Delhi, but received the same reply that the matter would receive consideration when a report was made by the Tariff Board.

VII. TEA.

1. South Indian Tea Crop, 1929. The following statement shows the crop of Tea from each district during the year:—

Anamallais	..	lbs.	10,387,286
Nilgiris	..	..	6,626,275
Nilgiri-Wynaad	..	..	4,276,854
Wynaad	..	..	6,313,810
Nelliampathies	..	..	46,818
Coorg	..	..	169,022
Central Travancore	..	..	11,765,654
Mundakayam	1,048,513
Kanan Devans	14,539,479
South Travancore	3,263,175
Mysore	80,700
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Total	..		58,517,586
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2. Consumption of Tea in Southern India. The figures received from the ports of the Presidency and Travancore show that during 1929 the total exports were 52,284,245 lbs. which would leave a remainder when compared with figures of production of 6,233,341 lbs. consumed in the country.

The following table gives the production and apparent local consumption for the past nine years:—

		Production lbs.	Local Consumption lbs.
1921	..	31,399,000	4,000,619
1922	..	36,231,287	6,713,366
1923	..	43,538,648	6,321,706
1924	..	46,161,408	8,207,006
1925	..	47,975,955	4,027,107
1926	..	51,065,004	6,662,284
1927	..	52,387,595	4,773,551
1928	..	55,760,603	7,113,469
1929	..	58,517,586	6,233,341

3. Imitation and Adulterated Teas. Owing to ill-health, Mr. Harpur, the Commissioner for India of the Indian Tea Cess Committee, has been unable to make the visits he had proposed to do to Southern India and has now gone Home. Early in November 1929, Mr. F. E. James, Planting Member of the Legislative Council, took the opportunity of being in Calcutta to discuss the matter of the enforcement of the provisions of the Madras Prevention of Adulteration Act with Mr. Harpur, who explained that it was proposed by the Indian Tea Cess Committee to employ three assistants in the Madras Presidency in connection with the prevention of the sale of adulterated tea. On the 12th November, Mr. Gupta of the Indian Tea Cess Committee visited Madras and carried out a preliminary survey of the towns to which the Act has been extended. The Association obtained the services of a man to be trained for the work, but he proved unsuitable. Another man has however been engaged and Mr. Goodsir, the Assistant Commissioner of the Tea Cess Committee has twice visited Madras with a view to starting work. In April, the Madras Corporation appointed four inspectors to enforce the provisions of the Act and on the 23rd May Government issued a notification containing draft rules regarding the delegation of powers, without which the Inspectors are unable to act. Government cannot pass final orders until at least six weeks after the issue of the Notification regarding rules, but it is expected that they will do so during this month and then the Act will at once be put into force. The Act is not yet in force anywhere, twelve years after it was passed.

4. Restriction of the 1930 Tea Crop. Early in the year an agreement was arrived at between India, Ceylon and the Dutch East Indies regarding restriction of the tea crop for 1930. In India and Ceylon this is to be effected on a scale based on the average prices realized during the three years 1926 to 1928, as follows:—

Estates which realized an average of less than 1s/5d per pound to restrict by 15 per cent. of the 1929 crop.

Estates which realized between 1s/5d and 1s/7d to restrict by 10 per cent. of the 1929 crop.

Estates which realized between 1s/7d and 1s/9d to restrict by 5 per cent. of the 1929 crop.

Estates which realized 1s/9d or over to restrict by 3 per cent. of the 1929 crop.

Details of the method to be followed was left to the decision of Java and Sumatra planters, provided the result was approximate to a 10 per cent. reduction on the crop for 1929.

Over 80 per cent of Sterling Companies working in Southern India came into the agreement but the response from rupee concerns was very meagre. The scheme came into force as from the beginning of April.

It is estimated that the total reductions in crops will amount to approximately 57¼ millions of pounds, as under:

Northern India	32 million lbs.
Southern India	4 do.
Ceylon	11¼ do.
Java and Sumatra	10 do.

5. Trade with Russia. The question of supplying a large quantity of tea to Russia on special terms occupied the attention of the various Producers' Associations in India, Ceylon and the Dutch East Indies in the early months of the year. However the scheme had to be abandoned owing to difficulty of financing the long credit demanded by Russia.

6. Increase of Tea Sales in India. The Association has been considering the possibility of finding a scheme to increase the consumption of Tea in India and the South Indian Association has been consulted in the matter. The Indian Tea Association has also been investigating the question, the great difficulty, in connection with which, is the bringing of supplies to the consumer.

7. Warehouse Charges—London. In November last the South Indian Association in London, with the support of other Associations interested, obtained a reduction of 5 per cent. in all importers' charges for tea warehouses including rent, as from the 1st December 1929 and a further 2½ per cent. as from the 3rd January 1930.

8. Tariff Valuation of Dust Teas. The Association has been consulted as to a proposal made that dust teas should be valued for tariff purposes at a separate rate to that for leaf teas. The argument being that as the price of dust teas is less than that of leaf teas, the tariff valuation should also be lower. The U.P.A.S.I. and the Indian Tea Associations have both protested that the present tariff valuation of dust teas is not too low and that if any alteration is made the value of leaf teas should be increased.

9. Import of Tea into Iraq. On the 6th April 1930, the Government of Iraq issued a notification regarding the import of tea into that country. Under the regulations made in the Notification, Ceylon teas are granted a concession which is not extended to teas from India. Both this Association and the Indian Tea Association have urged Government to take steps to ensure that a similar concession to that granted to Ceylon be extended to all tea from both Northern and Southern India.

VIII. COFFEE.

1. Southern India Coffee Crop. No attempt has been made, in previous reports, to record figures relating to the coffee crop, as the Association is not in a position to collect figures of any value, but the crop for the last ten years has been according to the 'Indian Coffee Statistics' issued by the Director-General of Statistics, Calcutta, who

compiles his figures for a year 1st July to 30th June each year, as follows:—

1919-1920	..	21,325,035	lbs.
1920-1921	..	22,453,659	"
1921-1922	..	20,487,926	"
1922-1923	..	25,459,428	"
1923-1924	..	19,145,403	"
1924-1925	..	30,457,644	"
1925-1926	..	22,106,717	"
1926-1927	..	34,281,995	"
1927-1928	..	35,563,321	"
1928-1929	..	27,758,633	"

2. Consumption in India. As mentioned above the production year of coffee is reckoned from the 1st July to 30th June, the account of exports given in the annual statement of the Sea borne trade and navigation of the Madras Presidency is for the official year 1st April to 31st March each year, it is difficult therefore to make an exact comparison, but the total production for the last five years exceeds the amount shipped by almost exactly 3,000 tons per annum.

3. Propaganda. At the last Annual Meeting, ways and means for increasing the consumption of Coffee were discussed and it was resolved that the various coffee interests in Southern India should be consulted, with a view to preparing a scheme of propaganda for submission to the Government of India and the Empire Marketing Board.

The Executive Committee invited opinions from all Associations, concerned with the production of coffee, and as a result, at the meeting of the General Committee held at Ootacamund on the 27th February, it was decided to drop further work in respect to propaganda in India and concentrate on work through the Empire Marketing Board at Home. This body is already pushing East India coffee at exhibitions being held in various parts of the United Kingdom. At the request of the Coorg Planters' Association, Mr. H. A. F. Lindsay, Indian Trade Commissioner,

London, has been asked the probable cost of the three suggestions made by him, *i.e.*

- (i) To participate in the Coffee Board Scheme.
- (ii) To participate in general propaganda on behalf of Empire Coffee with the help of the Empire Marketing Board.
- (iii) The possibility of getting the Empire Marketing Board to make a special appeal on behalf of South Indian Coffee.

Mr. Lindsay in a letter to the Association draws attention to a serious difficulty, with which the Empire Marketing Board has to contend in exhibiting Indian Coffee at exhibitions. He finds that it is apparently quite impossible for the ordinary consuming public of the United Kingdom to obtain Indian Coffee, as such, from grocers, all Mysore and Coorg coffee being used for blends and never being sold 'straight.' That means that it is almost impossible to secure for Indian Coffee the advantage of the widespread movement, at present in evidence in the United Kingdom, in favour of Empire products. He enquired whether steps could be taken to ensure Indian Coffee being available, as such, to the public in the United Kingdom. In conclusion he wrote that while the Empire Marketing Board is doing everything possible to bring Indian coffee to the notice of the public, by exhibits at Grocers' exhibitions, etc., it cannot promise that there will be any satisfactory result from such exhibitions unless and until a 'straight' Indian coffee is put on the market.

Messrs. T. H. Allan & Co., London Brokers have been asked to give the Association advice as to whether the sale of a 'straight' Indian coffee is a practical proposition.

Steps are being taken to see that exhibits of coffee are sent Home for display at India House, Aldwych, which has recently been opened.

4. The Coffee Board. While the question of propaganda to increase the sales of coffee has been under investigation by planters, a similar movement has been started at Home by the Coffee Trade Association. Last September a

meeting was called to consider the possibility of holding a National Coffee Week, in which everyone interested in the increased sale and popularity of coffee, would take part. At the meeting it was decided that the proposed propaganda was to be for all coffee, irrespective of country of origin and, although the idea of a coffee week was not carried, it was resolved that the meeting approved of the idea of coffee propaganda. The question of finance was referred to a sub-committee. At a later meeting in February it was decided that the sub-committee should be superseded by a permanent body known as the Coffee Board and that an inaugural Banquet be held about Easter. The Banquet was held on April 3rd. Mr. Asli, Indian Trade Publicity Officer was nominated as Government representative on the Executive Committee of the new Coffee Board. At a meeting held on the 19th May the Chairman announced two contributions from two London firms of 50 guineas each, and stated that it was proposed to conduct the campaign for five years and £50,000 a year would be required. Appeals in the first instance would be made to trade interests and secondly to Governments of the various coffee producing countries.

5. Alleged Deterioration of Quality. A witness who appeared before the Imperial Economic Committee which held an enquiry into the tea, coffee and cocoa industries of the Empire, stated that the decline in the consumption of South Indian Coffee was due to the deterioration in quality due to excessive manuring in the coffee estates of Southern India. Another witness expressing the opinion that the deterioration could be successfully dealt with by the extended use of manures. The Imperial Economic Committee enquired whether the Association could recommend a gentleman intimately connected with the coffee Industry, who would be available in London to give evidence. Messrs. C. H. Browne, C. H. Godfrey and C. Lake were good enough to undertake what was required, in order to place the views of planters before the Committee, that the reason for the decline in consumption of South India coffee in England is the steadily increasing proportion of the crop which is sold in India; that planters have no evidence of any actual deterioration in quality and are of opinion that an extended use of manures can only be beneficial both as regards quality and quantity.

6. Prohibition of Import of Unroasted Coffee.

The Association continued its efforts to persuade the Government of India to issue the promised notification prohibiting the import of unroasted coffee at the ports of Southern India. The Government of India referred a draft notification to the Governments of Madras and Mysore at the beginning of the year but there was great delay in issuing the notification which was however finally published in the Fort St. George Gazette of the 15th July. In the meantime the Government of Mysore on the 29th April had issued a notification prohibiting the import into that State of any raw coffee not the produce of India. The fact that *Stephanoderes* has recently been discovered in South India, and that the notification by the Government of India does not apparently prevent infected coffee imported at Calcutta or Bombay being brought by rail to the planting Districts, makes it imperative that the import of all unroasted coffee should be prohibited throughout India and this has been urged on the Government of India, who it is understood realize the necessity for urgency and are giving immediate attention to the question of total prohibition.

It has been pointed out to the Government of India that the present prohibition of import of seed coffee by post is deficient in that although it prohibits import by letter and sample post the order does not extend to parcels post, and it is hoped that this anomaly may be corrected very shortly by a further notification under the Pests Act.

7. *Stephanoderes*. At the end of May a sample of coffee, from this years crop, sent by Messrs. Peirce Leslie & Co's Coffee Curing Works at Mangalore to the Government Entomologist, was found to be infested by *Stephanoderes hampei*. Dr. Coleman the Director of Agriculture Mysore State and Mr. G. R. Hilson, Director of Agriculture, Madras, at once sent Dr. Kunhi Kannan of the Mysore Service and the Assistant Mycologist from the Agricultural College and Research Institute, Coimbatore, to investigate at all coffee curing yards on the West Coast. The result of their investigations, so far, go to show that the pest is present in Mysore, Coorg, the Nelliampathies, the Anamallais and the Shevaroyes. The low degree of infestation, as indicated by the examination of samples collected, goes to show that

either the infestation has been fairly recent or the conditions, existing in Southern India are not favourable for the rapid multiplication of the beetle. Dr. Coleman having discussed matters with Mysore planters on the 19th June, a meeting of coffee planters from other districts, met at Dr. Coleman's Office on the 28th June. The Executive Committee have decided to place Rs. 1,000 per mensem at the disposal of Dr. Coleman to organise field parties to immediately investigate the position on estates. The Imperial Council of Agricultural Research has been addressed asking for financial support to meet the cost of a comprehensive scheme for dealing with the pest over a period of five years.

IX. RUBBER.

1. Production in Southern India. From figures supplied to the Association from the ports of shipments, the following statement shows the export of Rubber from South India during the last seven years:—

1923	..	8,411,018 lbs.
1924	..	10,151,636 "
1925	..	13,950,915 "
1926	..	14,628,915 "
1927	..	16,042,831 "
1928	..	16,823,761 "
1929	..	17,222,790 "

The carefully compiled and detailed statement of 'Indian Rubber Statistics,' compiled by the Director-General of Commercial Intelligence and Statistics, unfortunately is received so long after the period to which the figures refer that its value is practically lost. At the same time it appears doubtful if they can be correct, as the following statement in respect to South India, shows:—

	Production as per Indian Rubber Statistics. lbs.	Shipment of Rubber from South India. lbs.
1926	.. 13,414,874	14,628,915
1927	.. 14,682,264	16,042,831
1928	.. 15,946,913	16,823,761

Every year shows the shipment of more than was produced, which over a period of three years amounts to over 3½ million pounds.

2. Restriction of Rubber Crop 1930. The problem of alleviating the pressure of the steadily increasing stocks of surplus rubber, which are responsible for the depression in prices, lead to collaboration with representative Dutch Rubber growers, the outcome of which was a scheme for complete cessation of tapping during the month of May, which met with general agreement. 90 per cent. of producing companies registered in the United Kingdom, 91 per cent. of Dutch and other European producers (excluding British) operating in the Netherland Indies and 79 per cent. of Malayan local European companies agreed to the scheme but response from local Ceylon and South Indian Companies was very poor. The scheme was brought into force and on a great majority of the area, under rubber, all tapping was suspended during the month of May.

X. SCIENTIFIC DEPARTMENT.

TEA.

1. Staff. The Executive Committee, on considering the discussion at the Annual General Meeting last year and the recommendation made by the Tea Advisory Committee that the staff at the Tea Station be increased by the employment of an Indian Chemist, came to the conclusion that the condition of the tea industry did not justify the Association in incurring further expenditure on the Tea Scientific Department.

2. Work at the Tea Experimental Station. Dr. Shaw has reported fully regarding the work at the Station in his Administration Report for the year. A Bulletin on the 'Tannin principles of Tea' by Dr. Shaw is now in the press and will be issued shortly.

3. Future Work at the Station. Owing to differences of opinion, which were expressed, regarding the value of the work being done at the Experimental Station, the Executive Committee invited leading tea planters to a special meeting at Ootacamund to discuss the future of the Tea Scientific Department of the Association, especially as regards the proposed co-operation with the Ceylon Tea Research Institute and the continuation of the present contribution of Rs. 10,000 per annum to the Scientific Department of the Indian Tea Association. The meeting was held on the 14th

June 1930 and it was finally decided to set up a special committee of a Chairman and five members, which in consultation with a senior Scientific Officer, should report to the Executive in time for consideration before the Annual Meeting as to the site and ultimate goal of the Tea Station and the possibility of amalgamation with other bodies; taking into consideration the other resolutions passed at the meeting.

In connection with the idea of close co-operation with the Ceylon Research Institute, Mr. H. L. Pinches visited the Coombs Estate on his way to England and reported to the Executive regarding his visit.

4. Tocklai Course of Lectures. The Scientific Department of the Indian Tea Association placed two seats for the Winter Course of Lectures in February and two for the Monsoon Course in July of this year, but it was not found possible by planters in Southern India to accept either invitation.

COFFEE.

1. The Coffee Scientific Officer. Mr. W. W. Mayne has continued to work at the Balehonnur Coffee Station, under the direction of Dr. Leslie C. Coleman, Director of Agriculture, Mysore. He made an extensive tour during November, December and January of the Coffee planting districts, with a view to seed selection, and has recently visited the Shevaroyis in connection with the spraying of coffee.

2. Sidapur Coffee Experimental Station. This has been maintained, under the direction of Mr. P. G. Tipping, at a monthly cost of Rs. 15 and a small expenditure on upkeep of buildings.

RUBBER.

1. Staff. Mr. H. Ashplant, as mentioned in the report for last year, returned to the Mundakayam Station in July 1929, but his health did not permit of his working in the climate of Mundakayam and on the 5th December he was obliged to resign his appointment, leaving Mundakayam early in February 1930. Mr. G. N. Frattini was engaged to act as Officer in Charge of the Station until such time as a senior Scientific Officer was appointed to the post. Mr. R. A.

Taylor of the Rubber Research Institute, Neboda, Ceylon, has accepted the appointment, but it is at present uncertain when he will be able to take up the work.

W. A. J. MILNER,
R. FOWKE,
C. R. T. CONGREVE,
P. G. TIPPING,
G. McPHERSON,
A. J. WRIGHT.

MADRAS,
23—7—1930.



THE CHAIRMAN'S ADDRESS.

The Chairman, in the course of his address, said:—

YOUR HIGHNESS AND GENTLEMEN,

It is a very great privilege, which I very much appreciate, for me to address you to-day at this, the 37th Annual General Meeting of the U.P.A.S.I.; and it is a very great pleasure to welcome on your behalf our distinguished visitors.

The past year has been one of those periodical years of crisis for the planting industry which seem to occur at regular intervals. Over-production (or might one not say under-consumption due perhaps to inadequate organisation on the selling side?) has of course been the cause.

In the case of TEA we may reasonably hope that the worst is now past. Stocks in the U.K. are estimated to be round about 227 million pounds, a reduction of 60 millions from the highest figure at which they stood at the end of last year. Reliable opinion in London favours a steady improvement in the position.

At the same time one must not be too optimistic. Java Estates are producing larger and larger crops every year which it apparently pays them to sell in the London market at about 8*d.* to 9*d.* a lb. It would be interesting to know what their cost of production is. There are very few instances in South India; I imagine of the C.I.F. London cost being lower than 9*d.*; in many cases 10*d.* would be the correct figure.

In Sumatra, during 1929, 20,000 acres of young tea came into bearing and a further 11,000 acres this year, but it is satisfactory to note that they have come into the Restriction Scheme although, strictly speaking, they need not have done so. This, together with new openings in other producing countries, must eventually mean a large increase in production.

World consumption of tea on the other hand appears to be almost at a standstill. The advertising campaign in the U. S. A. has not yet produced appreciable results despite the expenditure of large sums annually by the Indian Tea

Cess Committee. The Russian market has not come up to expectations owing to difficulties of finance. In India itself with its population of over 300 millions the consumption is said to be only 1/5th lb. per head per annum. The Indian Tea Cess Committee, I understand, are consulting the proprietary interests at home with a view to intensifying their efforts for increasing the sale of tea in this country and will, we hope, shortly be able to put forward some definite proposals.

COFFEE also has suffered severely from the general depression in prices, the rates being paid being fully 25 to 30 per cent. below those obtained at the same period last year.

South Indian Coffee is, I understand, feeling the competition of the Central African product and like Tea the best remedy lies at our own doors; and it is therefore encouraging to learn that the consumption of Coffee in this country is steadily increasing.

Coffee in South India is faced with a very serious problem in respect of *Stephanoderes* and measures to deal with this most dangerous disease must be decided on at this Meeting.

I must pay a warm tribute to the interest shown in this matter by Dr. Coleman and the Agricultural Department of the Mysore Government, and for the energy they have displayed in preparing schemes for the control and ultimate extinctions of the *Stephanoderes* pest. It is fortunate that we have in this matter the co-operation of one of the most efficient and up-to-date Departments of Agriculture in India. Dr. Coleman's scheme is based upon contributions in money from the U.P.A.S.I., the Governments of Mysore and Madras, the Administration of Coorg, and the Imperial Council of Agricultural Research. The U.P.A.S.I. is prepared, in spite of bad market conditions, to give its fair share. I am sure the Government of Mysore will assist with its usual generosity, with the co-operation of the Madras and Coorg Administrations. I am bound to say, however, that the full value of this expenditure will be largely nullified if the carrier of the pest—unroasted coffee beans from Java and Africa—is allowed to have access to this country. We have made repeated representations to the Government of

India on this question, with the result that the import of this commodity is prohibited in South Indian ports. I am glad to be able to add that Sir Frank Noyce recently assured our Planting Member, when in Simla in July, that the Government of India were giving the question of total prohibition their most immediate and careful consideration. Nothing short of complete prohibition will satisfy the coffee industry in this country.

RUBBER is in the worst position of all, but one can only hope that the efforts now being made by the Combined Anglo-Dutch Committee to induce their respective Governments to introduce legislation for Restriction of output will be successful. The world consumption of Rubber is estimated to be about 63,000 tons a month; production is 71,000 tons; and, if these figures are correct, it means that close on 100,000 tons of surplus rubber will be thrown on the market this year in addition to the present very large visible stocks.

It seems almost inconceivable, in view of the vast capital involved, that the Anglo-Dutch Committee's appeal to their respective Governments will fall on deaf ears. It is impossible to devise any scheme on a voluntary basis which can effectively meet the present situation. Government legislation is essential if the whole foundation of the industry is not to be seriously endangered and hundreds of thousands of native producers and estate labourers as well as the European staff engaged in rubber growing deprived of their means of livelihood.

The Report of the INDIAN STATUTORY COMMISSION has recommended, as anticipated, full Provincial Autonomy, and the report, as a whole, appears to provide a sound basis for the discussions which are to take place at the Round Table Conference.

In the present condition of the planting industry the financial suggestions (if given effect to) will hit us as well as other agriculturists very hard.

There is, I think, no need for me to say that, whatever the form of Government finally evolved, the planting community in South India will cordially co-operate with all other sections of the community to make the working of the

new Constitution in the Madras Presidency a success. (Applause). Before leaving this subject, I would like to refer to the words of Sir Hubert Carr, a former President of the European Association, in a recent speech:

"We can only hope that the Round Table Conference will produce proposals for the satisfaction of a reasonable Political demand which our community can support; for whether they had in mind their Indian friends and neighbours or their more lowly Indian fellow-citizens, they should certainly feel happier if they knew that the conditions afforded security and opportunity for them to attain their legitimate ambitions each in their own sphere. We are not an assembly of constitutional lawyers or politicians but as a trading community we can serve not only ourselves but Indian and Imperial interests in no small degree by keeping our eyes ahead when framing our policy and on reality, when seeking our safeguards, remembering that the essential factor in good trading conditions is a contented and prosperous country."

The Royal Commission on Labour in India took evidence from the representatives of this Association in Madras early in March this year and subsequently visited certain Estates.

Our Political Representative, Mr. F. E. James, has, as his report will tell you, continued to do a great deal of able work both in and outside the Madras Legislative Council in our interests. (Applause). In addition to his ordinary duties he took over for six months the editorship of the "Planters' Chronicle" at the request of the Executive Committee and in my humble opinion certainly effected a very considerable improvement in the paper, which we appreciate very much. (Applause). The "Chronicle" has now been handed back to Lt.-Commander E. L. Hill—the new Assistant Secretary appointed in June—and it should, when the present advertisement contracts have expired, be possible for the paper to resume publication as a weekly, if the majority of members so prefer it.

With regards to ROADS, it is gratifying to be able to report definite improvements as the result of U.P.A.S.I. representations. We hope that a portion of the extra fund (Rs. 12½ lakhs) which the Madras Government will receive as its share of the Petrol Tax (specially imposed for the purposes of road development by the Government of India) can be devoted to the object the U.P.A.S.I. have long been urging, *viz.*, the making of main roads to planting districts capable of carrying heavy lorry traffic.

At the Annual Meeting of the Motor Industry in India held in Calcutta in March last, the excellent suggestion was made that a Roads Loan should be floated and that the proceeds of the Petrol Tax should be set aside in a sinking fund to meet the interest on the loan. This would mean, I think, that it would be possible for the Madras Presidency to raise a sum of about Rupees Two Hundred Lakhs for the improvement of its roads and I venture to suggest that the U.P.A.S.I. should urge the Madras Government to give its serious attention to the proposal. Give Madras good roads and you will give her an opportunity for economic advance such as she has not experienced for centuries. Bear in mind that good roads mean more revenue and you will realise that they are purely a business proposition which will produce not only dividends, but happiness, contentment and prosperity for the people whose livelihood they will improve.

I will not detain you, gentlemen, much longer but must briefly refer to the work of our Labour and Scientific Departments and to the question of expenditure.

As regards the Labour Department the thanks of its supporters are due to Col. Brock and the Superintendents of Divisions for the constant energy maintained in the interests of those subscribing and the useful and valuable work done for estates and for the labour employed. (Applause).

Turning to the Scientific Department the future of our Tea Station has been very much to the fore during the year and definite proposals for its better working will be put before you at this Meeting. The ideal Station of course is one on similar lines to that just started in Ceylon where the Tea Research Institute have been fortunate enough to be able to purchase their own Estate, put up their own factory

and other buildings with the assistance of a loan from the Ceylon Government. We in South India cannot of course hope for anything approaching this but a great deal of very useful work lies before the Tea Station and I am sure that valuable results can be expected at a moderate cost.

The Coffee Station continues to function satisfactorily under Mr. Mayne supervised by Dr. Coleman.

Rubber has had the misfortune during the year to lose the invaluable services of Mr. Ashplant owing to ill-health, but another experienced officer in the person of Mr. R. A. Taylor has been engaged from Ceylon who I think may be relied on to carry on the Rubber Station work most efficiently.

Finally there is the question of expenditure which has had the anxious attention of your Executive Committee during the year. At the Budget Meeting in February, it was decided to reduce the General Cess by two annas per acre for all products plus two annas per acre for the Tea Scientific Department. This, as you know, was actually two annas per acre more than the maximum reduction the General Committee were empowered to make under the Articles of Association, but it is proposed to alter these so that the General Committee may have power to raise or lower the subscription of any particular product by such amount as it may think fit and not in future be limited to an increase or decrease of two annas per acre as has been the case in the past.

A further reduction of two annas per acre for Tea or Coffee over three years and six annas per acre account Rubber Scientific Department during the present year is proposed.

You will remember that savings in Labour Department expenditure representing a total of Rs. 13,950 in a full year have been sanctioned by the Executive Committee and that the cost of the Assistant Secretary's salary should be met entirely from the "Planters' Chronicle" and Buying Agency accounts.

It may interest you to know that on a large group of 1,800 acres of tea in Ceylon the cost of P.A. and Tea

Research Institute and Labour recruiting worked out as follows:—

District P. A. Annual Subscription ..	Rs. 30-0	Approximately '05 cents per lb. made tea.
Ceylon P. A.	Rs. 175-0	
C. E. P. A.	Rs. 70-0	
Tea Research Cess .. ..	.. ..	.. 10
Labour Recruiting Rs. 7-8 per acre ..	.. ..	.. 1'06
TOTAL ..		1'21 cents

which is I should say on a rough estimate at least 40 cents per lb. made tea higher than the cost of the U.P.A.S.I. Departments to a South Indian Tea Estate producing a crop of 600 lbs. per acre.

It is with very deep regret that I have to record the deaths of the following members since our last conference:—

W. LYNDON, of Pattumallay Estate, Peermade, at Stirling, Scotland, on the 24th November 1929.

W. R. THOMSON, Manager of the Giri Estate, Chickmagalur, in Sanderson Ward on Sunday, the 1st December 1929.

R. L. PIGOT, of the Kuradikhan Estate, Sangameswarpet, Kadur District, at Bangalore on Friday, the 7th December, of Enteric fever, aged 25 years.

P. R. BUCHANAN, General Manager of the Kanan Devan Hills Produce Company Limited, from about 1900 to 1912, at Home on the 29th December 1929.

H. P. HODGSON, a pioneer planter, who opened many estates in the Nilgiris and Nilgiri-Wynaad, at a Nursing Home in London on the 20th March 1930, aged 76 years. From 1896 to 1900 and again from 1904 to 1908 he was the representative of the planting community on the Madras Legislative Council. He was the Chairman of the Association during 1900-1901.

BUXTON LAWRIE, died on 19th April 1930. He was the Manager and part-owner of Glenmary Estate, Peermade, up to 1906 and afterwards became one of the Directors of the South Indian Tea Estates Co., when that Company

purchased the Glenmary Estate. He was the Chairman of the Central Travancore Planters' Association in 1904.

H. D. WILBRAHAM, of heart failure on the 6th of May 1930 at England. He was a well-known planter and with H. P. Hodgson opened up the Devarshola Estate in the Nilgiri-Wynaad.

H. D. DEANE DRUMMOND, died from acute bronchitis on 9th May 1930, was the owner of Stagbrook and Eldorado Estates in Peermade and Mundakayam respectively and resided at Stagbrook for many years. He actually opened Eldorado, one of the first Rubber Estates in the Mundakayam District.

S. H. POWELL, of the Chulika Estate, Meppadi, Wynaad, at the Lawley Hospital Coonoor, on the 11th July 1930.

E. N. LESLIE, on 16th July at Sidmouth, late of Kulsapore Estate, Koppa, Mysore, aged 71 years.

FRIENDS OF THE COMMUNITY.

LT.-COL. C. M. BROWNE, C.M.G., D.S.O., R.E., Director, Southern Circle, Survey of India, Bangalore, of heart failure at Bangalore on the 29th August 1929. He attended the Annual Meetings of 1926 and 1929.

FLETCHER NORTON, while playing golf on the 19th April 1930 at Bangalore, aged 72. From 1912 to 1918 he was the Secretary of the U.P.A.S.I. He attended the Annual Meetings of the Association almost every year.

To the relatives of all these I tender our sincere sympathy in their loss.

It only remains for me in conclusion once more to thank you all for the honour you did me last year in electing me your Chairman and for the way in which you have borne with my shortcomings. There is no need for me to tell you that in Mr. Waddington you have the ablest Secretary the U.P.A.S.I. has ever had, who has every item of interest to our Association at his finger ends and who works far harder for the U.P.A.S.I., than any planter has to work; that is saying a good deal, is it not, gentlemen, and I wish to express

my gratitude to him personally for all his advice and assistance during the year and on behalf of you all for his work for the U.P.A.S.I. I wish also to thank the Members of the Executive Committee, our Planting Member, Mr. James, and the Director of the Labour Department for their support during my year of office, which I appreciate very much indeed. I would also like to express on your behalf my appreciation of the work done by our Scientific Officers. (Loud and Prolonged Applause).

HIS HIGHNESS THE YUVARAJA'S SPEECH.

His Highness the Yuvaraja of Mysore made the following speech:—

MR. CHAIRMAN AND GENTLEMEN,

It is with very great pleasure, if at the same time with some little embarrassment, that I accept the Chairman's invitation to address this important gathering to-day.

When I was first invited to do so, I was somewhat vague in my ideas as to what a Planters' meeting implied. I thought of Aberigh-Mackay's description of the Planter in his "Twenty-one Days in India":—

"Everything is Homeric about him. He establishes himself firmly in the land with great joy and plenty: and he gathers round him all that makes life full-toned and harmonious, from the grand timbre of draught-ale and the organ-thunder of hunting, to the piccolo and tintinnabulum of Poker and Maraschino (Laughter). He is something placid, strong and easeful. Without wishing to appear obsequious, I always feel disposed to borrow money when I meet a substantial Planter."

I remembered meets of the Coorg Hounds and meetings at Chickmagalur, and other incidents of my knowledge of the planting community which seemed to correspond with this description, and I felt that this was a meeting at which I should be thoroughly at home. It was only a few days ago, when I received the lengthy volumes of the proceedings of meetings of previous years, that I realized that I was

expected to address an assembly of grave and reverend seigneurs, met together to discuss an agenda resembling that of a legislative body.

If I may say so, gentlemen, I am struck with the range and variety of your interests, which embrace not only politics in general and legislation but also scientific enquiry and experimental stations; roads, railways and harbours; sanitation and maternity benefits; scholarships and provident funds; soldiering, taxation and finance. In addition, they deal with everything that concerns the welfare of labour. In fact, your Association, or Federation, as I should like to call it, seems to carry on most of the functions of a Government, and I am sure that it is for the good of the country that it works in, that it continues year by year to show an increase in the acreage which subscribes to it, in the membership of its different bodies, and in its reserve fund, while at the same time doing, what few Governments have found themselves able to do of late, namely, remitting taxation. (Applause).

Before saying anything more, I should like to join your Chairman in an expression of deep regret at the deaths of those among your members and your friends who have passed over since your last meeting, and particularly at those of my own old friends Colonel Browne, H. D. Wilbraham, H. P. Hodgson and Fletcher Norton. The two latter were a part of the life of the Association for so many years, and such good friends to all who knew them, whether within or without it, that they will leave a gap that you will find it very hard to fill.

I don't propose to address you on the several serious matters which you are assembled to discuss. The extraordinary paradox that every product is suffering from over-production, and yet nobody is any better off for the fall in prices, is puzzling the brains of the leading economists of the world. And we can hardly hope to settle it here to-day. So far as concerns the products with which you are connected, it seems to me that you have in hand the best methods available of meeting the difficulty in restriction of production and propaganda for extending the markets, particularly the home market. And when your Chairman tells you, in respect of tea at any rate that the worst is now past, I feel that there

are many producers of other commodities who will be wishing that they could hear similar good news.

I should like to have said something of the progress of the Experimental Station at Balehonnur which the Mysore Government are running at an annual expenditure of about Rs. 40,000, and where you have a highly qualified scientific officer collaborating with the agricultural staff. But the whole question has been so fully and ably dealt with by Dr. Coleman in his profusely illustrated article in the last number of the Journal of the Mysore Agricultural and Experimental Union that I feel it would be superfluous for me to enter into details. You will find from that article that, in respect of the experiments in manuring, the station is just beginning to yield useful results. The plant breeding has been so far successful that by the end of the year Dr. Coleman expects to have 15,000 trees grown from seed from the best individual coffee trees growing in Southern India, and anticipates that within ten years he will be able to start distributing seed for trial. The greatest success, however, has been in the prevention of disease, particularly by spraying, and he holds out the hope that, when this practice has spread over the whole coffee area in Mysore, it will bring an increase in crop value of one crore of rupees per annum. While on this subject of disease, I understand that an important contribution by Mr. Mayne on one of the most serious diseases of coffee is now in the press and will be placed in your hands before the close of this week's meeting. It is the ambition and purpose of His Highness's Government to make the Balehonnur Station a model of its kind, and a steadily increasing source of accurate information to the coffee-planting community in general.

Your Chairman has told you that one of the most important matters which you have to decide on at this meeting is the taking of measures to deal with the disease which I understand scientists call *Stephanoderes Hampei* and Planters Stephen. I am sure you have all listened with great interest, as I have done, to what he has said regarding this pest. Even more important perhaps is what he has refrained from saying about what the "Times of India" have described as "a dreary record of bungling and inertia." I am sure you will all agree with me in admiring his wisdom and restraint

and in the hope that, as a result of the scheme prepared by the representatives of the Association in consultation with the several Directors of Agriculture, of the deputation of Dr. Coleman to Java by the Mysore Government and of your deliberations here, you will succeed in routing the common enemy. I hope too that you will succeed in securing large contributions towards the 2¼ lakhs that I understand you expect to expend in this connection in the next five years from all the Governments and Administrations concerned. It is unfortunate, however, that the Imperial Council of Agricultural Research has not been able to see its way to help you to the extent that you had hoped for, and research in a sphere of the highest importance to an industry in which Southern India is so vitally interested has now to be carried on without the aid of the Imperial Research Board. It is too early to anticipate the line of action upon which you will decide, but, as I gather from the preliminary account of the enemy given in the little pamphlet which Dr. Kunhi Kannan has recently issued, it seems likely that one important method will be what he describes as "control by means of parasites," in other words, that you will act upon the well-known scientific principle that

"Big fleas have little fleas upon their backs to bite'em,
And little fleas have lesser fleas, and so ad
infinitum."

I am not in the secret of the policy of the Mysore Government as regards the roads, but I can assure you that they are fully alive to the gigantic problem that has arisen through the expansion of mechanical transport, that they have a road fund in full operation, and that they are doing their very utmost to make the roads equal to the new demands upon them.

As regards politics in general, I should like to say that I regard your Association as a most happy augury for the future of India. Our statesmen and politicians are now vexing their heads over the great question of the future Commonwealth of India. Are the States to form one federation and the Provinces another, and the two to amalgamate later? Should the States federate first and the Provinces afterwards, or *Vice Versa*? And, if the British Indian Federation comes into being first, should the States all join

it at once, in so far as they are able or should single States be added on to the body that represents the Provinces? These and other questions, many of them, I think, somewhat academical, are being discussed up and down the country to-day. You, gentlemen, so far as I can see, got together in 1893 and just federated, and thereafter let your constitution grow. You are sitting here to-day, representatives from one large and one small Province and three important States, meeting in a town in one of the States, the jurisdiction over which lies for the present with the British Government, and are electing a representative to the Legislative Council of one of the Provinces. And if anybody on earth might expect to find itself tangled up with questions of conflicting interests and difficulties of jurisdiction, it seems to me that the name of that body is the U.P.A.S.I. Yet I have searched your proceedings for two years and can hardly find any reference whatever to difficulties of this kind. On the other hand, there is evidence all round of the fullest co-operation between you and the various Governments with which you are concerned in planting matters, and of them with one another.

The U.P.A.S.I. is undoubtedly a model institution whether considered in respect of its political representation or its labour department; its scientific enquiries or its journal, or its general control. I congratulate you on the accomplishment of another year's satisfactory work, and I wish you the best of good fortune in the future. I am very glad that you have chosen Bangalore as the headquarters of your week, and I am glad that your week is not entirely given up to business. I hope that this meeting and the Planters' Week have been established as permanent red letter days in the Bangalore calendar, and I can assure you, on behalf of the Mysore State, that you will always receive a very warm welcome when you come here. (Loud and Prolonged Applause).

The Chairman.—Gentlemen, on behalf of all, I have to express our thanks to His Highness the Yuvaraja of Mysore for his very interesting speech. (Loud and prolonged applause).

Mr. James, will you be good enough to address the meeting?

THE PLANTING MEMBER.

Mr. F. E. James.—The planting member, spoke as follows:—

In my printed report I have endeavoured in some measure to render an account of my stewardship as Planting Member. As discussion on that report is down on the agenda for next Wednesday, I do not propose to deal with it in detail now.

The Legislative Council has held no meetings since the end of March, and it was finally dissolved in June. The elections take place in September, and from present accounts there will be considerable change in the personnel. It appears that we shall be without the eloquence and ability of Mr. Satyamurthi, and the persistence and humour of Mr. Saldanha. The Justice Party was the first group in the field with a well-defined programme and they were followed by the Ministerialists with a policy which is progressive but not so well defined. Which will win remains at present in doubt. For the rest candidates are mainly anxious to profit by the lull in local politics and the absence of the Congress Party to get a footing in the Legislature.

BILLS PASSED.

The last few months of the last Council were prolific in legislation. The Malabar Tenancy Bill was finally passed in all its stages, but it has not yet received the assent of the Viceroy, and the parties concerned are still quarrelling over its provisions. It is a pity that the protracted fight which took place in the Legislature should be continued indefinitely. If there are genuine difficulties in the way of enacting the Bill as it stands, there would be no disgrace attached to either side if it were again submitted to the Legislature for reconsideration. The important thing is to arrive at a workable settlement. The Local Boards and District Municipalities Bills were finally passed in March and received the necessary assent. It is unfortunate that owing to administrative difficulties, the provisions of these Bills could not be brought into operation, at any rate in part, before the general elections. The European Group was unable in spite of strenuous endeavour to secure separate electorates for minorities in

local bodies. This was due partly to the fact that several minority representatives opposed separate electorates and partly because the Minister in charge used the Government machine for his majority. It is an open secret that some parts of the machine obeyed his whip with the greatest possible reluctance. At the instance of the Chamber of Commerce we were able to secure a new basis for the companies tax by which the assessment is to be, not on paid up capital, but on profits where ascertainable, and where not ascertainable, on turnover, on an agreed percentage. We took the trouble to explain our difficulties frankly to our Indian friends, and I am glad to acknowledge that we had the co-operation of all sides of the House in our endeavour to reach a more equitable basis. Last year I made mention of the probability of early legislation for the abolition of tolls. A Bill has been published by Government which proposes to abolish them in respect of motor vehicles and to replace the revenue lost thereby by a provincial tax. Most of the views so far received are understood to be in favour of the proposals, but nothing can be done until the new Council is elected and a new Ministry formed. We all hope that the Bill will then be brought forward so that the first step may be taken in the direction of removing completely what is an anachronism in these modern times. The question of the extension of the provisions of the Malabar Tenants' Improvement Act to the Gudalur Taluq is of great interest to us, and we hope that Government will be willing to legislate on that matter during the next Council.

MADRAS CITY COUNCIL.

I have continued throughout the year to serve on the Madras Corporation as a representative of the Chamber of Commerce, and can bear testimony to much excellent work which it has done, in spite of its occasional eruptions on political matters. A special word of praise is due to the President, Dewan Bahadur A. Ramaswamy Mudaliar, and the Commissioner Mr. E. Conran Smith for their keen and efficient service. This co-operation between an Indian President and a European Executive has furnished a valuable example of the kind of cooperation which will be so useful in the realm of local administration in the future.

The Chairman has referred to the Whitley Commission before which the Association gave evidence, and which, very largely as a result of our representations, visited estates in the Nilgiris, the Anamallais and Coorg. Their report has not yet been published but we may expect recommendations in regard to wages, health, welfare and political representation, and the resulting legislation will require our most careful and critical scrutiny.

POLITICAL ISSUES.

Local politics have been over-shadowed during the year by the wider constitutional issues of India's future Government. Since we last met the situation has undergone a series of rapid changes. There was first the Viceroy's declaration in November last which laid down the attainment of Dominion Status as the natural issue of India's constitutional progress, and the method of a Round Table Conference, a method demanded by two resolutions of the Legislative Assembly, as the best means of coming to an agreement on the concrete proposals to be placed before Parliament to secure that end. Then in swift succession came the Congress rejection of the Viceroy's terms, their declaration in the form of complete independence, Mr. Gandhi's salt march, the beginning of the civil disobedience movement and the intensification of the boycott of British goods. The latest stage is the publication of the Simon Commission Report, and the final attempt on the part of certain Liberal leaders to bring about a truce between Government and the Congress, and a cessation of the civil disobedience campaign throughout the country. Truly it has been an amazing year. I believe that when the smoke of battle is cleared away, and it is possible to see things in their perspective, one personality will stand out above every other—that of the Viceroy. I know it is customary in certain quarters to criticise him for his November declaration, and for not imprisoning Mr. Gandhi and crushing the civil disobedience movement earlier. I do not think either of these criticisms are just. It is the obvious aim of the Viceroy to lead India a stage further in her advance to self-government and to bridge the growing gulf between India and Britain by a settlement of the constitutional issue which is consistent both with India's self-respect and Britain's responsibilities. There is no nobler task

in our day and generation than this, and Lord Irwin has devoted all his great abilities to its accomplishment. He has been firm where firmness was essential, but he has refused to close the door to any chance of a settlement. I am glad that the European community in India has supported him in his task. That will go down to our credit when the history of these days is written. There are of course both in this country and Britain men who would thwart the Viceroy in his task, either through a desire not to see a settlement, or through ignorance of the realities of the situation. Prison and the Press Ordinance have been invoked in India to restrict their efforts, and I sometime wish that these weapons could also be used in Britain to stop the mischievous campaign which certain responsible men and irresponsible journals are conducting at the present moment. I am sure I can say as far as planters are concerned that we loyally support the one man in India in whose sincerity of purpose every party has great confidence and who is carrying a burden such as few men are called upon to bear.

SIMON REPORT.

The Simon Report whose recommendations we are to consider later has proposed far-reaching changes in India's constitution. Their recommendations have been received with a storm of execration. It is, however, a mistake to consider them as Britain's ultimatum to India. They are nothing of the kind. The Commissioners themselves only express the hope that they "furnish materials and suggest a plan by means of which India's constitutional reconstruction may be peacefully and surely promoted." The Commissioners have taken a broad view of the problem, and their outline of a federation is the most important proposal that has yet been made to deal with the position of the Indian States. Only after a careful and detailed study can the great changes recommended be appreciated, and it is certain that they will take a very important place in the discussions of the Round Table Conference.

It is not to be expected that Europeans will be united in their views of the Simon proposals. In the first place there are many shades of political opinion in our community. It is quite inaccurate to say that to-day there are no diehards

among Europeans in India. There are plenty of them and they can put up a very good case for a reversion to the pre-reform system of administration. It would be more accurate to say that the general attitude of Europeans to-day is far more favourable to Indian aspirations than it has been in the past. In the second place in regard to provincial matters, conditions vary in different provinces. We in Madras have advocated full responsible Government and the greatest amount of autonomy in our province, without some of the restrictions which are thought necessary in other provinces. With regard to the Central Government, it will be difficult for our community to put forward very detailed views, and our leaders should be content with formulating certain general principles which they wish to see applied in the new constitution. It is of the utmost importance that this constitutional problem should be settled on lines which will permit India's growth to Self-Government without further recourse to Commissions of inquiry. We are sick of experiments. What is needed is growth on well defined lines.

There is however one matter on which Europeans of all shades of opinion are united, and that is the necessity for their protection against discrimination in the matter of taxation and legislation. This is a plain fact which no Indian party should ignore, because it is bound to carry considerable weight in Britain. It is just as plain a fact as is the apprehension of the Mahomedan community that it may not receive its full due in the new constitution. But it is not enough for us simply to assert this as a fact. We must be prepared to say exactly what safeguards we want. At the Round Table Conference realities will take the place of phrases, and our representatives must be prepared to put forward concrete proposals.

SAFEGUARDS FOR MINORITIES.

The Simon Commission agrees, that safeguards are necessary for minorities, but proposes that they should be provided in the impartial powers of the Governor-General and the provincial Governors who should have the duty laid upon them by specific mandate in their Instrument of Instructions to intervene in all proper cases. This does not appear to me to be wholly satisfactory. It places a tremen-

dous responsibility on these officials, and they would naturally be reluctant to use reserve powers in regard to legislation which had passed through all its stages. These are weapons to be used sparingly and only as a last resort. What other safeguards are possible then?

There are three suggestions. The first is the existence of a strong central administration, which though representative is not subject to every political wind that blows. It is difficult to conceive a strong central Executive, immediately responsible to the vote of the Legislature, especially when it is representative not only of British India, but also of the Indian States. The only responsibility which it seems possible to contemplate is that of having the personnel of the Executive largely drawn from the ranks of the legislature. Our main object should be to obtain that stability in Government which is so essential to India's credit and commerce.

The second is the provision of second chambers in the provinces. It is conceivable that hasty discriminating legislation might be passed by a single chamber during some national excitement with or without intention to do harm to a particular community. The Governor might not feel able to exercise his impartial powers. Here a second chamber, containing representatives of all communities including minorities and special interests such as labour and commerce, representatives who were qualified by past public service, might prove a useful brake on the enthusiasm of the lower house and might act as a competent revising body.

The third is the incorporation of certain definite clauses in the new Government of India Act. Provisions forbidding discrimination or preference as between States are to be found in the Australian Commonwealth Act, and as between citizens in some of the Articles laid down by the League of Nations for mandates. There does not seem to be any reason why similar clauses should not appear in the Act which establishes the new Government for India.

INDIAN CITIZENSHIP.

What do we want? First not to be treated as foreigners in India, and second not to be discriminated against as regards taxation and commerce. I therefore suggest that in

regard to the first point, a clause be drafted on the lines of Article 3 of the Irish Constitution to the effect that all persons without distinction of race, nationality or religion, who are born in India, or who are naturalised in India, or either of whose parents are born in India, or who being citizens of the United Kingdom of Great Britain and Northern Ireland are resident in India at the time of the passing of the Act, or who have been ordinarily resident or carrying on trade within India for a period of one year, should be deemed to be Indian citizens and should enjoy all the privileges and be subject to all the obligations of such citizenship. This would confer on British subjects in India the status of Indian citizenship, a proposal which I believe would not be unacceptable to Indian parties. Indeed some such proposal was made in the supplementary report of the All Parties Conference (commonly known as Nehru Report). In regard to the second point a clause could be drafted which would deny to the legislatures of India the power to impose directly or indirectly any disability on or discrimination against or in favour of any particular class of citizens on account of race, nationality or religion in respect of trade, commerce or industry, taxation or the acquisition of property, moveable or immovable. Provision should also be made for suitable procedure to test the validity of any Act of the Legislature with reference to this clause. I have made these suggestions in the desire to be practical. The European community must get down to brass tacks on this question and the most expert legal and constitutional opinion should be sought by our interests.

There is nothing in these provisions which is derogatory to Self-Government. In fact similar provisions appear in the constitutional laws of other countries. Nor do these provisions affect Europeans alone. They are a general protection for all minorities not inconsistent with the fullest development of national policies. They simply prevent discrimination in the treatment of Indian citizens among whom we claim to be allowed to take our place on grounds of history, sentiment and association. I submit that no Indian party which does not intend to discriminate against us can object to these proposals.

There is, of course, no absolutely cast-iron protection possible against discrimination. The best safeguard is goodwill and mutual trust. But until these are established and the present bitterness and racial antagonism are at an end, statutory safeguards are absolutely necessary and must be provided.

DOMINION STATUS.

While one plain fact in the situation, however, is this united European demand for safeguards against discrimination, another plain fact is the united Indian demand for Dominion Status for India—that is, a position in the Empire and in the world which is not inferior to that of the Dominion. Lord Irwin's use of the phrase "Dominion Status" has been sharply criticised, but surely it showed its appreciation of the realities of the situation. There may be and is difference of opinion among Indians as to the way in which self-Government or Dominion-hood should function in India; but there is no difference of opinion, as far as I can gather, about India's status. Misunderstanding and hesitation on this point have caused more than anything else a deep and widespread distrust in India of British aims. I have been tremendously impressed in my tours throughout South India and recently in the North, by the fact that this wholesale distrust has gone deep into the hearts and minds of some of our best friends. Much of it is undeserved, but it is there and it would be folly to ignore it. My impression is that at the very outset this question of status will be raised in London by India's representatives, and on Britain's handling of it will depend the success of the Conference. And why should we be afraid of the phrase "Dominion Status"? It is so much greater a term than "equality" or "independence," and it has caught the imagination of India. If it were possible for India to attain to "independence" she would stand free, it is true, but a lonely figure in an unfriendly world, coveted by many. But with "Dominion Status" she stands free and in willing partnership with other free nations united in common allegiance to a single Throne in the greatest family of peoples the world has ever seen. I say this on my own responsibility, because I believe that once this is settled, India and Britain will be able to work out in trustful co-operation, the practical problems of India's internal Government.

It is urgently necessary that the debris of mistrust should be cleared away as soon as possible. For, does not every section of the country want peace? There is one way to secure that now, and only one—the way of conference. Any other way will lead to disorder and war and it is clear that India is awakening to that fact. She is learning the evils of civil disobedience, and how it is undermining that very spirit of discipline and respect for law and order which will be essential for any Government in India.

"Civil dissension is a viperous worm that gnaws the bowels of the Commonwealth."

BOYCOTT AND SWADESHI.

She is learning too that boycott can be a two-edged weapon which harms those who use it, as well as those against whom it is used. There is all the difference between the boycott and the Swadeshi movement. The one is destructive and the other is constructive. Boycott never built a nation, and it can only lead to economic ruin. But no one can object to a policy of increasing Indian production in the things which she now imports. It is clear that even Bombay is realizing that.

There is no hope either in boycott or in civil revolt. Ireland is sometimes held up as an example of a constitution won at the point of the sword. But Ireland is riven in two, a divided nation. She refused the way of conference. And so I repeat that the only way to-day for India is to follow the Irwin way. We trust that she will realize it before it is too late.

I am bound to add one comment. There seems to be a tendency on the part of the Government of India to make the personnel and arrangements of the Round Table Conference depend upon the present negotiations with Mr. Gandhi and his friends. Much as we wish success to these negotiations, we think that the preparations for the Conference should go ahead undisturbed. The personnel of those who are willing to go and the date should be fixed. Let the Congress know that there are seats reserved for them if they wish to attend. But it is not good policy to risk the patience of friends for the sake of co-operation of those who have declared themselves enemies.

As far as planters are concerned, whatever the Round Table Conference brings forth, we must make ready for great changes. We must work and work hard for our safeguards, but we must also work and work hard to win for our community that goodwill and trust on which our interests ultimately depend. With that we can look to the future with confidence and prepare to take our share in the coming national reconstruction of India.

At this stage, His Highness the Yuvaraja of Mysore, His Highness the Maharaja of Travancore and other distinguished guests left the meeting.

Executive Committee's Report.

The Chairman.—Gentlemen, I now return to the Report of the Executive Committee. I should like to know if any delegates have any questions to ask about it. I would request you, as far as possible, to postpone the particular points you wish to raise until the subject, dealt with, comes before the meeting in the order given in the agenda. If no member has anything to bring up now, I would propose from the chair:—

"That the Executive Committee's Report be and is hereby adopted."

Will those in favour please hold up their hands? Those against?

The resolution is carried.

The Secretary.—Mr. Chairman, I have received a message from Mr. A. C. Cotton, who writes a line to wish you a most successful meeting at Bangalore.

Sir Fairless Barber cables wishes for a successful meeting and trusts expenses will be curtailed. (Laughter).

A cable from Mr. R. Lescher says:—

"Best wishes for successful meeting. Cut everything down to reasonable limits. Salaams to all." (Laughter).

Accounts—1929-1930.

The Chairman.—Gentlemen, the next item on the agenda is the Accounts for 1929-30 which have been circulated to all the members. The question before the meeting is simply a formal adoption of the Auditor's Report and Accounts. Questions relating to any particular expenditure can be brought up under items of the agenda dealing with "Finance."

I would ask the Secretary to read the Auditor's Report.

Auditor's Report.

The Secretary.—The Auditor's Report reads as follows:—

"We have to report that we have audited the Balance Sheet of the United Planters' Association of Southern India (incorporated) as at 31st March, 1930, and above set forth and have obtained all the information and explanations we have required.

In our opinion such Balance Sheet is drawn up in conformity with the Law and exhibits a true and correct view of the state of the Association's affairs according to the best of our information and the explanations given to us and as shown by the Books of the Association and the Returns from the Divisions.

(Sd.) FRASER & ROSS,
Chartered Accountants, Auditors."

The Chairman.—Gentlemen, I will now put the following resolution from the Chair:—

"*That the Accounts for 1929-1930 be adopted.*"

Will those in favour kindly hold up their hands? Those against?

The resolution is carried.

The Chairman.—Well, Gentlemen, that closes the business for this afternoon and I now adjourn the meeting until 10 o'clock to-morrow morning.

Second Day, Tuesday, 19th August 1930.

(MORNING SESSION.)

The meeting re-assembled at 10 a.m.

In addition to the delegates there were* present Mr. G. R. Hilson, Director of Agriculture, Madras; Dr. Leslie C. Coleman, Director of Agriculture in Mysore; Mrs. D. Sakamma of the Kusubur Group of Coffee Estates, Coorg; Mr. C. Vasudeva Rao and Mr. Bagamane Deva Gowda of the Attiegoonda and Belehohie Estates, and Mr. A. B. Chengappa of Coorg.

The Chairman.—Gentlemen, the Secretary will take the roll and check the names of the delegates attending the Annual General Meeting.

The Secretary then checked the names.

The Chairman.—Gentlemen, before commencing the business of the meeting, I should like, on your behalf, to express our deep regret at the sad death of Mr. T. V. Veeraraghavan, I.C.S. You must have read in to-day's paper that Mr. Veeraraghavan, son of Sir T. Vijayaraghavacharya, was killed in a riding accident in Madras and in view of the great interest taken by Sir T. Vijayaraghavacharya in the United Planters' Association of Southern India, I propose that a telegram of sympathy from this meeting be sent to the bereaved family.

The meeting unanimously resolved to do so.

The Chairman.—Gentlemen, I should like to extend a very hearty welcome to Dr. Leslie Coleman, Mr. Hilson and to the Indian Coffee Planters who have been able to attend our meeting here to-day.

Stephanoderes.

The Chairman.—The first item on the agenda is "Stephanoderes." I would like to explain that, in view of the crisis which has arisen owing to the discovery of this pest, it has been decided to take up coffee matters first at this meeting and I propose to discuss this subject now.

Later on we can discuss what steps should be taken in regard to propaganda with a view to increasing sales of coffee. The resolution which has been tabled with regard to *Stephanoderes* reads as follows:—

"In view of the pest being found alive in imported coffee, this Association press upon the Central Government the necessity of prohibiting the import of coffee except for experimental purposes.

"This Association also urge on the Central Government the urgent necessity for financing such schemes as might be drawn up to put an end to the pest."

Before asking the Coorg delegates to move this resolution, I think it might be advisable to place before the meeting the position with regard to this matter. I might mention that on receipt of a telegram from the Secretary who was at Bangalore, I at once left for Madras to discuss matters with him. On my arrival there, we received telegraphic consent from Associations, interested in coffee, agreeing to guarantee, from their share of the accumulated funds, Rs. 50,000 towards the cost of scheme prepared by Dr. Coleman. I approved of the representations drawn up by the Secretary to the Imperial Council of Agricultural Research.

I will now ask Dr. Leslie Coleman to give us the latest information.

Dr. Leslie Coleman.—Mr. Chairman and Gentlemen, before speaking on the subject which is put down on your agenda, I should like to take this opportunity of expressing to you, Sir, on behalf of the Agricultural Department of Mysore and myself, our very great appreciation of the gracious manner in which you referred to our efforts yesterday in your opening speech. It is a very pleasant thing for me to say a few words on this occasion. As years go by and as we all get older, our tempers seem to get sweeter and there seems to be more co-ordination and harmony between the United Planters' Association and the Mysore Agricultural Department.

The discovery of *Stephanoderes hampei* in coffee grown on estates in India has undoubtedly been one of the most

disquieting occurrences of recent years in connection with our coffee industry. The discovery, as you all know, was made in coffee that had reached the curing yards very late in the season, when most of the crop had already been sold and when the monsoon was just about to begin. This has made attempts to investigate the occurrence of the pest on estates a very difficult matter and it is quite out of the question at present to predict the progress of this pest in the future.

We have the well-known fact that in two of the largest coffee producing countries, Brazil and Java, *Stephanoderes* has proved to be a most serious menace to the industry. Whether we shall have to face a similar situation in South India, is a matter largely of speculation, as it must be in all cases where a living organism finds a home in a new country. There are on the one hand certain grounds for optimism from the fact that in most of our coffee areas the picking season does not extend over a long period, but on the other hand we have to face the fact that the expansion of the area under Robusta Coffee which has been and is still taking place, is likely to add to our dangers.

My attitude has, from the first, not been an alarmist one. As I said when addressing the Mysore Planters' Association in Chikmagalur, two months ago, the introduction of *Stephanoderes* into India at its best is likely to prove a decided nuisance to coffee planters, at its worst a very serious menace to the Industry. Coinciding as it does with a period of depression in the industry, it adds very considerably to the gravity of the situation.

Let me review briefly the work in connection with *Stephanoderes hampei* in India. Live specimens of this pest were, as you know, first discovered by the Entomologist, Madras Department of Agriculture, in March 1927. These were found in a sample of coffee seed imported from Java. Live beetles were again found in a sample of seed coffee from the Belgian Congo which reached the Mysore Entomologist on the 19th of March of this year. In both cases seeds and beetles were destroyed. In late May or early June of this year, the Madras Entomologist reported finding a dead specimen of *Stephanoderes* in Indian Coffee,

received from a West Coast curing firm. As it was indicated that this coffee had been grown in Mysore, I instructed Dr. Kunhi Kannan, Entomologist of the Mysore Department, to proceed at once to Coimbatore and then to the West Coast, to go into the question as thoroughly as possible. I instructed him to investigate particularly the possibility of foreign grown coffee, the infestation of which has been frequently noted in samples collected from bazaars having been mixed with the Mysore Coffee. His report to me after an investigation extending over 10 days from the 5th to the 15th June substantiated the findings of the Madras Entomologist and stated that there seemed to be no possibility of the infestation being anything other than one of Mysore Coffee.

It was only after this information had reached me that I took the step informing the coffee planters in general of the situation. I addressed the Mysore Planters' Association on the subject in Chikmagalur in the middle of June and met in company with Mr. Hilson, Director of Agriculture, Madras, your Secretary and a body of representative coffee planters on the 28th June, in my office to discuss the possibility of concerted measures to meet the situation. Major Loch, Secretary to the Resident in Mysore, also attended the meeting.

As a result of the discussion, it was decided (a) that Mr. Hilson and I should draw up a scheme for the investigation and combating of the pest and (b) that we should approach personally Sir Vijayaraghavacharya, Vice-President of the Imperial Council of Agricultural Research, in regard to the possibility of obtaining from that body a grant to help us in this work. On the same night, Mr. Hilson and I left for Bombay and a five year scheme, involving a total expenditure of Rs. 2,75,000 of which Rs. 55,000 was for non-recurring expenditure, was prepared and presented to Sir Vijayaraghavacharya with a note explaining the position. The question was discussed with Sir Vijayaraghavacharya and Mr. Burt on the morning of the 2nd June and Mr. Hilson will substantiate the statement that we found these gentlemen most sympathetic, and, as far as we could see, favourable to the scheme. None of the points of criticism which have since been raised was, according to my memory,

seriously raised at the time. The one point of the comparatively small acreage of coffee was discussed, but the note had already pointed out, and I emphasized in the course of the discussion, the fact that coffee cultivation in Mysore and Coorg at least, and I believed also in other parts as well, played a role in the agricultural economy of these areas far in excess of that which could be gathered from the figures from acreage, figures which, I may say, are anything but accurate and which represent a very decided underestimate. I may point out, in passing, that it is this very fact which has induced the Mysore Government to establish a large and well-equipped experiment station which purely on a comparison of the acreage under coffee with that under other crops could not have been justified.

As you are aware a definite application to the Imperial Council was made by your Association on precisely the lines marked out in our note and discussed with Sir T. Vijayaraghavacharya and Mr. Burt. It was this application that was discussed at the recent meeting of the Governing Body of the Imperial Council. It is interesting to note, however, that about two weeks before this meeting, information reaches your Association as well as the Mysore Government, that the scheme, as regards the apportionment of contribution, could not or would not be recommended to the Governing Body but would have to undergo drastic revision.

I may point out here that neither Mr. Hilson nor I had any grounds for thinking that any proposals for revision that might be made would involve a merging of the contribution of the Imperial Council with those that might become available from Madras and Coorg. We therefore instituted inquiries unofficially as to the possibility of such contributions and provisional estimates were prepared on this basis. The change of front displayed by officers of the Imperial Council of Agricultural Research, as you can understand practically, cut the ground from under our feet, for, it must be obvious that if a Government is presented with a scheme providing for a merging of their contribution with that of another organization, the total grant being guaranteed by the second organization, the strong temptation will be for the Government to reduce the amount of their grant to the lowest figure possible. The indications are that this is

exactly what would happen in the present case were the proposals of the Imperial Council accepted. I have seen no official report of the proceedings of the Imperial Council as regards this question, but what would seem from other evidence that has come to my attention as a very fair report of the discussion and conclusions, will be found in the "Hindu" of the 13th August. According to this report, Sir Vijayaraghavacharya proposed that the Imperial Council should guarantee half the recurring expenditure or a total of about Rs. 1,10,000 spread over five years. He expected to receive no contribution from Coorg and Rs. 5,000 per annum from Madras, which would leave a total of Rs. 85,000 to be borne by the Imperial Council. According to information which I have been able to gather, the total that might be expected from Coorg and Madras would be more in the nature of Rs. 15,000 per annum or a total of Rs. 75,000 leaving a sum of Rs. 35,000 to be met by the Council, a very different figure indeed. I am not prepared to state that after the rather astonishing incursion of the Imperial Council into the field it will still be possible to obtain adequate grants of this nature from the Governments concerned, but I sincerely trust that the importance of the question to the whole of South India will induce these Governments to act as liberally as possible in the matter.

The main feature of the Imperial Council's proposal was the insistence that Mysore should bear about half the burden. The Council ignored entirely the fact that the Mysore State is already spending very considerable sums on work in connection with the maintenance and development of the coffee industry and that the results of this work are available to every coffee planter in India, whether he be Indian or European. These sums are almost equal to the total recurring expenditure estimated under our proposed scheme. To propose that on the top of this, Mysore should bear approximately half the expenditure involved in the investigation and combating of this new pest, is, I submit to propose, something which is in the highest degree unjust. It is these considerations which have compelled the Mysore Government regretfully to decline to take part in the scheme as revised by the Imperial Council. My own personal feeling is, after having had access to, I believe, practically all

the correspondence connected, with this scheme, and after reading the report that has appeared in the "Hindu", that the Imperial Council has looked upon us rather in the nature of importunate beggars not really worthy of assistance but who have to be helped because we have made nuisances of ourselves. That this is the case, is, I think, indicated by the tone of the telegram received by your Planting Member from the Secretary to the Imperial Council of Agricultural Research, which reads as follows:—

"Governing Body have referred back coffee scheme for further information which we have telegraphed Hilson to supply and desire official application from Madras Government. You should know however that Governing Body were not favourably disposed towards a grant and will not in any case go beyond terms suggested by Vice-Chairman namely that Council including Madras and Coorg should between them find not more than half the recurring cost, Mysore and your Association, finding the remaining half recurring and total non-recurring—Agrisec."

You will, I think, understand that under these circumstances no course lay open to the Mysore Government but to decline to participate in the modified scheme now presented to them. I have been instructed to inform you, however, that they are willing and anxious to co-operate in a scheme for the co-ordination of all work, having, as its object, the investigation and control of this pest. They are, I am convinced, prepared to bear their fair share of the financial burden, involved in such a scheme and to give the assistance of their agricultural department for the purpose.

Turning to the future, unless you are prepared to sit down and take no further action and to trust to Providence to deal with the situation, there are only two courses open to you. You can join with the Mysore Government in the scheme which we shall now have to prepare. In that case, it will be necessary to approach the Governments of both Madras and Coorg with the object of obtaining their financial assistance and co-operation. On the other hand you can with the possible assistance of the Imperial Council and the Madras and Coorg Governments develop a scheme of your own. I am personally of opinion that the

former alternative will be the more advantageous one to you but perhaps I am prejudiced.

In conclusion I may point out that we have not let the uncertainty of the situation as regards finance, prevent the taking of action that has been possible. The Mysore Agricultural Department has had an Entomological Officer in the field investigating the situation on Coffee Estates reported as infested. The Mysore Government have also lent the services of one of our Entomological staff to Coorg to train men there for field work. The results up to the present have not been startling but interesting observations have nevertheless been made which should prove of considerable value on our future work. The Entomologist of the Department has had to deal with very large numbers of samples of coffee beans and with many enquiries. I understand from Mr. Hilson that similar work is being done by the Entomological staff of the Madras Department. I wish here to emphasize the fact that the most cordial relations have existed between the two departments in connection with this work. Lastly, as you have been informed, the Mysore Government have sanctioned my deputation to Java to make as thorough a study as possible of the situation there and the measures that have been taken there to bring the pest under control. While the situation has certainly not been improved through our attempt to enlist the co-operation of the Imperial Council of Agricultural Research, it is nevertheless not a hopeless one. There seems to me no reason why the various Governments and bodies concerned should not work out a scheme—something which we should certainly have thought of at once had there been no Imperial Council. That scheme will probably have to be a more modest one than the one already prepared and it will, I think, certainly be less satisfactory. However I personally have become so used to working schemes with funds which appear to be inadequate, that I am not dismayed.

I have to make one addition to the above statement. I have not acted upon the resolution of your managing committee requesting me to appoint Entomological officers to conduct field surveys and other operations in the various coffee areas outside Mysore. This has not been done for two reasons. In the first place, experience in both Mysore

and Coorg has indicated that field work is not likely to be of great value till after the close of the monsoon. In the second place, I felt it would be unfair to commit your Association in even the slightest degree, to action in co-operation with the Mysore Agricultural Department until you had had an opportunity of discussing the matter in the light of the situation that has unfortunately arisen.

In conclusion, Gentlemen, it may seem to some that I have been unnecessarily and perhaps unwisely critical of the action of a very important body. This has certainly not been my intention. I have tried to present to you the facts as I see them and the inferences that may be fairly drawn from those facts—I have a high respect for the Imperial Council of Agricultural Research and the work it is attempting to do. I have also a high respect for its able and charming Vice-President and wish to express the greatest regret that he found it impossible to attend this meeting. This morning's paper brings the tragic news of the death from accident of Sir Vijayaraghavacharya's son and I am sure you will wish to join with me in extending to him our sincere sympathy. (Loud Applause).

The Chairman.—Mr. Hilson, will you kindly let us have your views?

Mr. G. R. Hilson.—Mr. Chairman and Gentlemen, I must first of all thank you for inviting me to be present at this meeting and assure you that I am very grateful to accept your invitation.

I fear that in regard to this matter, I cannot add very much to the information that Dr. Leslie Coleman has given you. Dr. Coleman this morning showed me the speech which he had prepared for you asking me if I agreed with it and I informed him that I had nothing to add to it. I am in entire agreement with all he has said. It was on my suggestion that the scheme was put before the Research Council and it is a matter of deep regret that the result has been so unfortunate.

Dr. Coleman has put before you two alternatives for you to choose in regard to your future action. He suggested that we should have a combined scheme and that in this

scheme all the Governments concerned should co-operate. As an alternative he suggested that this Association should combine with the Coorg Government and the Madras Government and obtain a grant from the Research Council. To my mind it is unthinkable that any scheme should omit Mysore. (Applause). I consider that we must all co-operate together. Apart from that, it seems to me that the scheme which leaves out Mysore is going to be unnecessarily expensive. (Hear, hear). Mysore will certainly not sit down and do nothing if you adopt the alternative scheme, and if you adopt the alternative scheme you must have something in the nature of a coffee station, you must have an Entomologist at that station and it seems to me that the result will be that you will have two Entomologists working on the scheme, where you might have done with only one. I am, therefore, in favour of a combined scheme for Madras, Coorg and Mysore, and I shall do what I can to help the development of the scheme. (Applause).

Unfortunately, since Dr. Coleman informed me definitely that the Mysore Government would not come into a scheme in which the Imperial Research Council appeared as partners, I have not had an opportunity of discussing this matter with my Government and, therefore, I am not in a position to say anything definite about it. (Loud Applause).

The Chairman.—Mr. Nicolls, will you move your resolution?

Mr. A. E. J. Nicolls.—Mr. Chairman and Gentlemen, the resolution reads as follows:—

“In view of the fact that this pest has been found alive in imported coffee, this Association would once more press upon the Central Government the extreme urgency of the immediate total prohibition of the import of all coffee in the raw state into India; Further, this Association would urge upon the Central Government the necessity of financing entirely such schemes as would stamp out this pest as may be decided upon by the Agricultural Authorities of the Governments concerned.”

The words “extreme urgency” may be left out from the resolution.

In the light of what Dr. Coleman and Mr. Hilson have just said; the latter part of our resolution may sound rather conflicting, but I feel convinced that as the Government of India, at any rate, in the opinion of our experts, are solely responsible for the introduction of this pest into India, it seems only fair that they should pay the Piper. We have our own industry to consider in this matter, as I learnt from Dr. Coleman that this pest has been found dead in groundnut, although it has not yet been proved yet that it breeds in it.

Dr. Leslie Coleman.—I think, Sir, I must correct Mr. Nicolls. I have no recollection of having suggested that this pest has been found in groundnut.

Mr. A. E. J. Nicolls.—I beg your pardon. I think it was Mr. Hilson who suggested it.

Mr. G. R. Hilson.—I am afraid Mr. Nicolls has misunderstood me. What I said was that this pest had been found to bore into the groundnut and into castor beans, but it has not been found to breed into them. I suggested that if raw coffee beans were allowed to come into India in large quantities, there was a possibility that the beetle might escape from the bags and might manage to keep itself alive by boring into castor beans and into groundnuts and then possibly find its way into the coffee territory. If it changes its usual habits and starts to breed in these crops, then, of course, it might prove a menace to both of these crops in addition to coffee.

Mr. A. E. J. Nicolls.—I apologise, Gentlemen, for my mistake.

After hearing what Dr. Leslie Coleman and Mr. Hilson have said, there remains very little for me to say except that all coffee planters will support the idea of co-operating with the Mysore Government. I think it would be most unwise for us to try to launch out a scheme on our own.

I have nothing further to say on the subject except to thank Dr. Coleman and Mr. Hilson for the very prompt action which they took under the circumstances. I recommend this resolution to the meeting for unanimous approval and acceptance.

Dr. Leslie Coleman.—May I make one suggestion? Instead of saying "Director of Agriculture," we may say "Director of Agriculture, Madras."

The Secretary.—That is already in the copy, which I have.

There is a resolution, Mr. Chairman, which has been lodged with us by the Mysore Planters' Association. I do not know whether they wish to move this as an amendment.

The Chairman.—Who seconds the resolution?

Mr. E. W. Fowke.—I second it.

Mr. S. H. Dennis.—We wish to move an amendment:—

"That this Association expresses strong dissatisfaction at the failure of the Government of India to apply the Destructive Insects and Pests Act in spite of our repeated representations between 1925-1930 and urges upon the Imperial Government the justice of financing any scheme for stamping out the disease.

"This Association, therefore, considers that in justice the whole cost of the campaign against this pest should be borne by the Government of India."

Captain E. H. A. Travers-Drapes.—I second it.

Mr. C. R. T. Congreve.—Mr. Chairman, this is hardly an amendment to the previous resolution and in view of the fact that the previous resolution covers practically the whole ground, the second resolution is hardly necessary at all. The first paragraph of it is very strong, which is, I think, entirely justified, but I should like to suggest that it might be embodied in the letter to the Government of India, through the Government of Madras, when forwarding the original resolution. It is an expression of opinion of this meeting rather than an amendment to the other resolution. I would ask the mover to withdraw it.

The Chairman.—Mr. Fowke, will your Association withdraw this resolution and do as Mr. Congreve suggests?

Mr. E. W. Fowke.—Sir, we have nothing on record that the Pest Act should have been brought in before. This resolution does that.

The Chairman.—Do you want me to put the amendment to the meeting?

Captain E. H. A. Travers-Drapes.—Mr. Chairman and Gentlemen, it seems to me that we ought to put on record our feeling of resentment at the dilatoriness of the Government of India in having delayed in granting us the protection which we have been asking for many years and which, if it had been granted, we should not have been brought to the verge of a serious crisis. The first resolution does not seem strong enough and I doubt whether a covering letter would carry as much weight as a resolution.

Mr. E. W. Fowke.—I withdraw it as an amendment and I put it as a main resolution.

Mr. F. E. James.—Could not you use the phrase,—“in view of the fact,” in the first sentence and say “through the Director of Agriculture, Madras,” and then put in “this Association desires to express its strong dissatisfaction with the Government of India for not applying earlier the provisions of the Destructive Insects and Pests Act, 1914, in spite of their repeated requests covering a period from 1925 to 1930 on the part of this Association.” I suggest that you insert something on those lines there, so that it could go into the main resolution.

The Chairman.—Mr. Nicolls, do you agree to that?

Mr. A. E. J. Nicolls.—Yes, I will agree to that.

The Chairman.—Gentlemen, the resolution before the meeting which is proposed by Mr. Nicolls and seconded by Mr. Fowke is as follows:—

“In view of the fact that this pest has been found alive in imported coffee, this Association would, once more, press upon the Imperial Government the extreme necessity of the immediate total prohibition of the import of all coffee in the raw state into India, with the exception of such consignments as are imported for experimental purposes only, through the Director of Agriculture, Madras. It desires to express its strong dissatisfaction at the failure of the Government of India for not applying earlier the Destructive

Insects and Pests Act of 1914 to the import of raw coffee into India, in spite of repeated representations made by this Association from 1925 to 1930. And further, this Association would urge upon the Imperial Government the necessity of financing entirely such schemes for stamping out this pest, as may be decided upon by the Agriculture Authorities of the Governments concerned."

Have any delegates anything to say on this matter?

IN COMMITTEE.

Captain E. H. A. Travers-Drapes.—If I may say, so, I would like to suggest that the word "justice" instead of the word "necessity" might be used.

The Chairman.—Mr. Nicolls, would you like to put the word "justice" instead of the word "necessity?"

Mr. A. E. J. Nicolls.—I have no objection whatever.

The Chairman.—Has any other delegate any views to bring forward?

Mr. Tipping.—I have a resolution.

The Chairman.—Is it an amendment?

Mr. Tipping.—It is a separate resolution.

The Chairman.—Have you anything to say Dr. Coleman?

Dr. Leslie Coleman.—I may say that Mr. Nicolls very kindly consulted me and also Mr. Hilson in regard to his resolution and I have nothing to say by way of addition or subtraction.

OPEN MEETING.

The Chairman.—If no other delegates have anything further to say, I will put the resolution to the meeting.

Proposed by Mr. A. E. J. Nicolls and seconded by Mr. E. W. Fowke:—

"In view of the fact that this pest has been found alive in imported coffee, this Association would, once more,

press upon the Imperial Government the extreme urgency of the immediate total prohibition of the import of all coffee, in the raw state, into India,—with the exception of such consignments as are imported for experimental purposes only, through the Director of Agriculture, Madras. It desires to express its strong dissatisfaction with the Government of India for not applying earlier the Destructive Insects and Pests Act of 1914 to the import of raw coffee into India, in spite of repeated representations made by this Association from 1925 to 1930. And further, this Association would urge upon the Imperial Government the justice of financing entirely such schemes for stamping out this pest, as may be decided upon by the Agriculture Authorities of the Governments concerned."

Will those in favour please hold up their hands? Those against.

The resolution is carried.

The Chairman.—Mr. Dennis will you read your resolution?

Mr. S. H. Dennis.—My resolution reads as follows:—

" This Association strongly urges the Government of Madras and the Mysore Administration to co-operate in advancing a scheme for stamping out the pest in South India."

The Chairman.—Mr. Dennis, I think that rather upsets the previous resolution which asks the Government of India to entirely finance the scheme.

Mr. A. E. J. Nicolls.—Mr. Chairman, as it is most unlikely that the Imperial Government will finance the scheme, would not it be just as well that we might address the other Governments?

IN COMMITTEE.

The Chairman.—Gentlemen, we will go into committee at this stage.

Mr. C. R. T. Congreve.—I should like to suggest the following wording:—

“With a view to avoid delay which is bound to occur before any definite decision can be arrived at regarding help by the Government of India and in view of the great urgency for the control of *Stephanoderes Hampei*, this Association press upon the Government of Madras, the Administration of Coorg and the Government of Mysore to co-operate in taking such steps as are necessary to control this disease.”

Let us not close the door to the Government of India. This does not stultify the resolution which has already been passed.

The Chairman.—Mr. Dennis, do you accept Mr. Congreve's suggestion?

Mr. S. H. Dennis.—Yes, I accept it.

Mr. C. R. T. Congreve.—I only suggest a way out of the difficulty.

Mr. Tipping.—I withdraw the resolution, I proposed to move.

The Chairman.—You want to withdraw your resolution Mr. Nicolls?

Mr. A. E. J. Nicolls.—Yes, certainly.

OPEN MEETING.

The Chairman.—The resolution before the meeting, now, is:—

“That in view of the delay which is likely to occur before any definite decision can be reached regarding help by the Imperial Government, and in view of the extreme urgency of the case, this Association asks all South Indian Governments concerned to co-operate to take such steps as are necessary to control and ultimately eradicate the pest known as *Stephanoderes Hampei*.”

Who is that seconded by?

Mr. P. G. Tipping.—I second it.

Mr. C. R. T. Congreve.—Regarding the Governments concerned I might point out that there is a considerable area of coffee in Cochin and Travancore and so the Cochin and Travancore Governments might be asked for their help and co-operation.

The Chairman.—Mr. Dennis, have you any objection to including Cochin and Travancore?

Mr. S. H. Dennis.—No.

The Chairman.—I should like to hear the views of the other members on this resolution.

Dr. Leslie Coleman.—Sir, in connection with this matter, I think I should make a statement. As you are aware, the Mysore Government has approved of my deputation to Java and I shall be leaving for Colombo on the 5th of next month. I shall probably be away for about six weeks, and by the time I return, I trust that some information will have become available to your Association with regard, at least, to the attitude of the South Indian Government. Now what I should like to point out is this: That in the consideration of any scheme it would seem to be necessary, to have a meeting of representatives of these various Governments with the representatives of the Upasi in the approving of such a scheme. I may say this morning I had an interview with Major Loch, the Secretary to the Hon'ble the Resident, and he pointed out to me a very distinct omission for which probably I am to blame. That omission is that up to the present the Government of Coorg have no official information of the action that has been taken in the past. He pointed out to me that, had that been so, it might have been possible for the Coorg Government to exercise their influence in regard to this matter with the Government of India. Now my only excuse, in this matter, is that the thing was done in such a hurry that the matter entirely escaped my mind. As some of you are aware, Major Loch was present at the meeting and I took it that that was sufficient information for the Coorg Government as to what had actually transpired.

Now we shall undoubtedly have to prepare a scheme, and to get some action taken almost immediately. I anticipate that as soon as the harvest season comes, we may be

able to find an easier way out of the difficulty. In connection with this matter, I may point out that my attitude is this. I shall certainly never be a party to the expenditure of money unnecessarily. (Applause). I can say that as representing the Mysore Government, which undoubtedly will have as much to do in the finance as any other body or organisation, I can also assure the Upasi help in whatever they do in this connection. As I have pointed out, to individual members, we may find—and I hope we shall find—that this pest can be brought under control, can be kept under control and possibly eradicated at a much smaller expenditure of money than the estimate that we have already prepared. I certainly would be very glad to receive suggestions as regards the reduction in Capital expenditure. As you are aware a suggestion was made that a sum of Rs. 55,000 would have to be spent in that way. That was due to the fact that our Coffee Experimental Station is situated in an area, where living quarters are rather hard to find, and it seems absolutely essential to construct quarters for the men who would be engaged in this investigation. Now if my very good friends the Mysore Planters' Association and the Mysore Indian Planters' Association who are present here to-day and who, we are assured, are prepared to co-operate most heartily and loyally with you in your work (Applause)—if they can suggest to us any means by which the expenditure under this or any other item can be reduced, I shall be the first person to accept such a suggestion. What I wish to point out is this. In the present situation, we must have an assurance of support—and we must have an assurance of the maximum of support—that we can look forward to. That will free our hands for planning a campaign. If at any stage during the next 1, 2, 3, 4, or 5 years, it seems possible or advisable to reduce expenditure, I think I can give you the assurance that if I have anything to do with the scheme, that that reduction will be made immediately. (Applause). I have had such long experience of work in South India in connection with Scientific investigation and the idea of economy in all such operations has been so incessantly pressed upon me, that I do not think I can spend money foolishly or unwisely even if I try to. (Laughter). I wish to give you that firm assurance that, if at any stage it appears possible or

advisable to stop expenditure or to reduce operations in any way, that action will be taken immediately. (Applause).

I should just like to say one word more. I do not know whether it is possible or advisable to pass a resolution in this connection or whether it is necessary for you to instruct your Managing Committee to take such action as is necessary—probably they are able to do that without any instructions from you. I am afraid I do not know anything about your situation. In case it is necessary to give instructions to your Managing Committee, I would suggest that instructions be given to arrange, at as early a date as possible, for a conference of representatives of the Coffee and other organisations concerned, to discuss fully the question of finance and operations in general. (Applause).

IN COMMITTEE.

The Secretary.—Dr. Coleman, when you refer to the difficulty of obtaining accommodation, was it the idea that possibly you might obtain a loan of a bungalow.

Dr. Leslie Coleman.—Yes, that was the suggestion made to me by one of the representatives of the Mysore Planters' Association. We are prepared to undergo inconvenience if we can save money.

OPEN MEETING.

The Chairman.—I should like to hear the views of the Indian Coffee Planters' who are present at this meeting.

Mrs. Sakamma of Coorg.—I think the India Government ought to have done something to stop the import of this sort of coffee seeds into this country. They ought to have stopped it a few years ago, at the time when representations were made by the Unions concerned and by the Associations concerned. (Hear, hear). The India Government must help us to carry on this work of eradicating this pest which has been found recently. All the Governments concerned in Southern India must co-operate together along with the other Associations and must try to do something to eradicate this pest as early as possible.

The Chairman.—Thank you. Well, gentlemen, if no other delegate has anything further to say on this resolution, I will put it to the meeting.

Proposed by Mr. S. H. Dennis and seconded by Mr. P. G. Tipping:—

"That in view of the delay which is likely to occur before any definite decision can be reached regarding help by the Imperial Government, and in view of the extreme urgency of the case, this Association asks all South Indian Governments concerned to co-operate to take such steps as are necessary to control and ultimately eradicate the pest known as Stephanoderes Hampei."

Those in favour of the resolution? Those against?

The resolution is carried unanimously.

The Chairman.—Well, Gentlemen, I should like to know, now, if it is the decision of the Coffee Planters present, that we should cease negotiations with the Imperial Council of Agricultural Research and co-operate with Mysore?

Mr. C. R. T. Congreve.—I think that we certainly ought not to cease negotiations with the Imperial Government of India—we might cease negotiations with the Imperial Council of Agricultural Research. We should go straight to the Government of India through the Government of Madras.

Mr. A. E. J. Nicolls.—I entirely agree with that.

Mr. P. G. Tipping.—I also agree.

Mr. F. E. James.—Mr. Chairman, may I suggest that if we want to make an impression on the Government of India, I think it would be sound that the Coffee Associations consider the advisability of sending a deputation to the Government of India? My own experience is that if your negotiations are simply conducted by means of correspondence, there is likely to be a continued and protracted delay and it was the opinion expressed to me by a Secretary in the Government of India himself, the other day, that one deputation meeting a responsible person, face to face, is worth a

Ton of correspondence and, I think, it might quite well be worth while considering such action. (Applause).

The Chairman.—Mr. Congreve, are you going to move a resolution?

IN COMMITTEE.

Mr. C. R. T. Congreve.—I thought, Sir, you wanted an expression of opinion.

The Chairman.—You do not suggest that we should cease negotiations?

Mr. C. R. T. Congreve.—No; we must have negotiations direct.

The Chairman.—I should think it would be better that a resolution is moved by those members who are interested.

The Secretary.—Mr. Chairman, Dr. Coleman in his speech put it quite clearly that you have got to come to a decision. Are you going to support the Mysore scheme which says that they will have nothing to do with the Imperial Council of Agricultural Research? Or are you still looking to the Agricultural Council for assistance, if you can get it?

Mr. A. E. J. Nicolls.—I certainly made that remark in my feeble speech.

The Secretary.—I apologise for not having heard it, but it is not on record at this meeting. The resolutions passed so far do not show that.

The Chairman.—Will you move a resolution, Mr. Congreve, and make your position clear?

Mr. C. R. T. Congreve.—I will certainly do so. I thought I had made the matter clear. I purposely did not mention the Imperial Council, but I knew from previous conversations with Dr. Coleman that he would have no objection to any funds that we would provide. There was no mention of Imperial Council at all.

Dr. Leslie Coleman.—As far as the Imperial Government goes—I am speaking here without taking instructions

from the Mysore Government—I had not an opportunity of discussing this with my Government. The Mysore Government under the present circumstances will have absolutely nothing to do with any scheme, the funds for which come from the funds of the Imperial Council of Agricultural Research. In addition to this, we are told somewhat indifferently that the Council is not prepared to do anything different from what is stated in this telegram. On that basis I have to say on behalf of the Mysore Government that they cannot enter into a scheme which is to be started in this way. That has nothing to do with the Government of India nor does it say that should the Imperial Council change its mind, that we would not be prepared to re-consider it. But the Imperial Council says that it is not going to change its mind in any case. So we have to accept the words that they have written here. I presume the telegram is correct and the information of the Mysore Government was received in the same form.

Mr. C. R. T. Congreve.—Mr. Chairman, I do not know whether the following resolution meets with the views of this meeting:—

“In view of the telegram received from the Governing Body of the Imperial Council of Agricultural Research and in view of the remarks made by Dr. Leslie Coleman, this Association is of the opinion that a close co-operation between the Mysore Government and the other interested Governments and Associations of South India is essential and that the conditions laid down by the Institute of Science are not acceptable.”

Mr. F. E. James.—May I suggest that you mention in the resolution “that the conditions laid down by the Imperial Council of Agricultural Research” and not the “Institute of Science” are not acceptable in their present form.”

Mr. A. E. J. Nicolls.—Mr. Chairman, it appears to me that whatever financial help we may get from the Imperial Government, they must consult, to a certain extent, the Imperial Council of Agricultural Research. If the suggestion is to have a smack with the Imperial Council, I think it

would be most unwise to do so. We are likely to do ourselves more harm than good. We may just ignore them, but it would be most unwise to put in a resolution like this.

Mr. C. R. T. Congreve.—I shall read it once more:—

“In view of the telegram received from the Governing Body of the Imperial Council of Agricultural Research and in view of the remarks made by Dr. Leslie Coleman, this Association is of the opinion that a close co-operation between Mysore Government and the other interested Governments and Associations of South India is essential and that the conditions laid down by the Imperial Council of Agricultural Research are not acceptable in their present form.”

This does not close the door in any way for further argument with this Body and if they choose to alter their suggestions, we are still in a position to accept them.

The Chairman.—Mr. Nicolls, do you accept that?

Mr. A. E. J. Nicolls.—Yes.

The Chairman.—Does anybody wish to move an amendment to this resolution?

The Secretary.—In the resolution after the words “in view of the telegram received” should we put in “by the Planting Member.” You see the Association has not had any reply to its letter at all. (Laughter).

Mr. C. R. T. Congreve.—Any alteration that is necessary may be made.

The Secretary.—Do not you think that that would be an advantage?

The Chairman.—Yes.

OPEN MEETING.

The Chairman.—The resolution proposed by Mr. C.R.T. Congreve and seconded by Mr. H. S. Cameron reads as follows:—

“In view of the telegram received by the Planting Member from the Governing Body of the Imperial Council of Agricultural Research and in view of the

remarks made by Dr. Leslie Coleman, this Association is of the opinion that a close co-operation between Mysore Government and the other interested Governments and Associations of South India is essential. and that the conditions laid down by the Imperial Council of Agricultural Research are not acceptable in their present form."

Does any member wish to speak further on this resolution? If not, I will put it to the meeting. Those in favour of it? Those against?

The resolution is carried.

The Chairman.—Has anyone anything further to say about Stephanoderes Hampei?

The Secretary.—Dr. Coleman said that he had revised the scheme somewhat.

Dr. Leslie Coleman.—"Had revised" or "would revise."

The Secretary.—I understood "had revised." I take it you have not got a revised scheme to place before us, but as I have to approach the Government on the matter, I must have some scheme to take up by letter.

Dr. Leslie Coleman.—I have not got enough information. Mr. Fowke has just come to me with a little private information which I shall have to digest. Mr. Hilson is stopping with me and I understand Mr. Fowke is going to give me a little more information, this evening, and possibly Mr. Hilson will also give me some information. I may say that I have a fairly good idea in my mind as to how much money will be required or how much money ought to be placed at the disposal of any organization which would have to work the scheme. But I do not think it would be right for me to express any definite opinion here, until I have had an opportunity of consulting Mr. Hilson and until Mr. Fowke can divulge a little more information of which he has given me a slight hint a short time ago. I do not know if you can find time to-morrow, or at any subsequent meeting, to discuss this matter or whether you leave it in the hands of your Managing Committee or the Secretary. Can Mr. Waddington spare the time?

The Secretary.—I am afraid I cannot. Will it be possible for Dr. Coleman to send me his revised scheme before he leaves for Java?

Dr. Leslie Coleman.—I leave the matter entirely into your hands. I cannot commit myself to any statement as regards funds until I have that information. Mr. Waddington has asked whether this scheme will be available before I go to Java. My reply is "most assuredly."

The Chairman.—Has anybody anything further to say on *Stephanoderes Hampei* before going on to the next item?

I would like on behalf of the meeting to express our very hearty thanks to Dr. Leslie Coleman for all that he has done for us. (Loud Applause).

Coffee Propaganda.

The Chairman.—The next item is coffee propaganda. The Coorg Planters' Association have put forward a resolution.

Proposed by Mr. A. E. J. Nicolls and seconded by Mr. S. H. Dennis:—

"That this Meeting to consider the question of Coffee Propaganda."

Mr. A. E. J. Nicolls.—Mr. Chairman and Gentlemen, my only object in bringing up this resolution is in order to enable us to discuss it, if anybody wishes to do so. So far as I am concerned I intended to ask our Secretary, if he could give us the latest information on the subject.

The Secretary.—Mr. Chairman and Gentlemen, I think the latest information I have regarding this is the letter of the 26th July from the Office of the High Commissioner of Trade for India, Mr. H. A. F. Lindsay.



By Air Mail.

OFFICE OF THE HIGH COMMISSIONER FOR INDIA.

THE TRADE COMMISSIONER,

INDIA HOUSE, ALDWYCH, LONDON, W.C. 2,

July 26th, 1930.

THE SECRETARY,

UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA,

First Line Beach, MADRAS.

DEAR SIR,

I am writing to catch the air mail in reply to your letter No. 3185, dated 10th July, forwarding a request from the Coorg Planters' Association to be informed what the probable cost of three publicity schemes will be.

2. The three schemes mentioned in your letter came up for consideration at an informal preliminary meeting which I held on the 4th March 1930 with Mr. J. Mackie and Mr. W. Lyall Grant.

3. In the light of information subsequently received it became necessary to re-state these three schemes in the following way:—

(a) Participation in the Coffee Board Scheme;

(b) To get the Empire Marketing Board to issue a fresh poster advertising Indian products among which coffee would figure;

(c) To get the Empire Marketing Board to advertise Empire Coffee as a whole in which case India would benefit equally with Kenya and other Empire producers.

4. But this alternative was qualified in my letter of the 17th March to Sir T. Vijayaraghavacharya (of which he has doubtless sent you a copy) pointing out that it is quite useless calling on the Empire Marketing Board to assist in any propaganda on behalf of India coffee unless and until the retail purchaser in this country is able to identify Indian coffee as such. Indian coffee would not even benefit by publicity on behalf of Empire coffee as a whole; at any rate not to the full extent to which it would benefit if the retail purchaser could buy it as such.

5. I hope you will not think that I am exaggerating the case in any way when I say that Indian coffee cannot possibly benefit to any appreciable extent from the present move in favour of Empire buying until the retailer can purchase it under its own name.

Yours faithfully,

(Sd.) H. A. F. LINDSAY,

Indian Trade Commissioner.

P.S.—Empire countries will shortly be addressed by the Coffee Board direct on the subject of participation in this campaign and contributions to a central fund. We cannot yet say what the cost is likely to be. We send the Imperial Council of Agricultural Research prompt information regarding decisions of the Board and your best plan will be to keep in close touch with the Council.

This letter was in reply to one from me, in which I had forwarded Mr. Lindsay a copy of the following letter which I had written to the Coorg Planters' Association:—

No. 3186,

A. M. WEBB, Esq.,

Honorary Secretary,

Coorg Planters' Association,

Pollibetta—Coorg.

UNITED PLANTERS' ASSOCIATION OF

SOUTHERN INDIA, MADRAS,

10th July 1930.

DEAR SIR,

COFFEE PROPAGANDA.

I am this morning in receipt of your undated letter giving cover to copies of correspondence from the Commissioner of Coorg and asking me to enquire of Mr. H. A. F. Lindsay, the Indian Trade Commissioner, the probable cost of three schemes mentioned in the Report of the Annual General Meeting of your Association on the 20th June last.

You suggested that I should cable, but it is difficult to explain what schemes we are referring to without the date of Mr. Lindsay's letter to Sir T. Vijayaraghavacharya. I have accordingly written Mr. Lindsay by air mail asking for reply by same route, which should bring us the answer before the U.P.A.S.I. Annual Meeting.

Mr. Lindsay in a letter dated 3rd ultimo to me writes:—

"In this connection may I draw your attention and that of the United Planters' Association of Southern India to a serious difficulty with which we have to contend in exhibiting Indian Coffee at exhibitions of this kind? I refer to the fact that it is apparently quite impossible for the ordinary consuming public of the United Kingdom to obtain Indian Coffee as such from grocers. I understand that all Mysore and Coorg Coffee is used for blends and is never sold "straight." That means that it is almost impossible to secure for Indian Coffee advantage of the widespread movement at present in evidence in the United Kingdom in favour of Empire products."

He then continues on matters concerning Tea and then as follows:—

"Do you think that steps could be taken to ensure Indian coffee being available as such to the public in the United Kingdom? In conclusion, while we are doing everything possible to bring Indian Coffee to notice of the public by

exhibits at Grocers Exhibitions, etc., we cannot promise that there will be any satisfactory result from such exhibitions unless and until a "straight" Indian Coffee is put on the market."

I think the above deserves very careful consideration, the opinion of the trade evidently is that "straight" Indian Coffee would not appeal to the public, for otherwise why is it not offered more widely? Mr. Lindsay is I think too sweeping when he says Mysore Coffee is never sold "straight". I feel certain I know a shop where I could buy it, I certainly could have a few years back.

Yours faithfully,

(Sd.) H. WADDINGTON,

Secretary.

At the same time, as time was very short, I wrote Messrs. T. H. Allan & Co., and asked their views regarding the sale of "straight" coffee at Home. To this they replied:—

By Air Mail.

T. H. ALLAN & CO.,

17, GRACECHURCH STREET,

London, July 24th, 1930.

THE SECRETARY,

UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA,

Mercantile Bank Buildings, First Line Beach,

MADRAS. (INDIA).

DEAR SIR,

We thank you for your letter of the 10th instant enclosing copy of your letter of the same date to the Coorg Planters' Association which gave extracts from a letter written to you by Mr. H. A. F. Lindsay.

We think you were right in believing that what Mr. Lindsay wrote to you was rather too sweeping.

It is true that by far the greater part of East India coffee is used in blends, and that there are many places where it cannot be bought "straight," but on the other hand there are many places where it can be bought. No doubt the former are in a great majority as naturally small shops cannot keep much variety and have to confine themselves to one or two blends at different prices. As a matter of fact, we know that some, at least, of the wholesale London firms regularly quote "Mysore" in the price lists sent to their customers.

With regard to the second extract from Mr. Lindsay's letter, we think that Indian Coffee can only be "put on the market" by creating a demand for it. Grocers would not readily stock an article for

which they had little or no demand, and the competition between the wholesale houses is probably too keen for any of them to risk alienating a customer by suggesting experiments, but with reference to what Mr. Lindsay writes about Exhibitions we think it could certainly be arranged that whenever Indian Coffee is being shown some of the local shops, whose names would be given to enquirers, should have a stock of it, and if they found that there was sufficient demand they would no doubt stock it regularly in future.

We shall be glad to do anything that we can to assist you in this matter.

Yours faithfully,

(Sd.) T. H. ALLAN & CO.

You will notice from the reply received that no mention is made with regard to cost.

The Chairman.—Has any delegate anything further to say on this question of Coffee Propaganda?

Mr. E. W. Fowke.—Would not it be worth while trying Northern India?

The Chairman.—What suggestion do you make for raising the necessary funds?

Mr. E. W. Fowke.—Samples of coffee might be sent.

The Chairman.—You want that to be done by the Upasi?

Mr. E. W. Fowke.—I only put it forward as an idea.

The Chairman.—Mr. Nicolls, do you want to move a definite resolution as to how coffee propaganda should be done?

Mr. A. E. J. Nicolls.—No Sir. I only brought forward this resolution in case anybody had anything to say. Our Association can only sit tight until we get further details about the Coffee Board. The other two schemes seem to be quite impracticable.

IN COMMITTEE.

Dr. Leslie Coleman.—May I ask Mr. Waddington if any demand has ever been made, or any discussion has ever taken place, with reference to the Coffee Propaganda in India itself? I understand that it has and—I hope I am

putting my remarks correctly in saying—that the idea was given up, as nobody could suggest any possible method of carrying out such a propaganda. I see we are in committee and so I might just suggest that the present seems to be particularly the opportune moment for the expansion of the use of Indian coffee in India. If the Government of India take the action which we are asking them to take, and if that action is effective, the Indian coffee drinker will, perforce, have to drink Indian coffee. Now that means that the use of Indian Coffee will expand in this country. I do not know whether we are justified in supposing as a result of that, that as many people will drink coffee as are drinking tea now. I think you know it has been brought to my attention that there is, or there has been, a definite attempt made by certain firms in India, to expand the use of some of the other Empire coffees in this country; in fact, I got a letter from a planting friend a short time ago, that he was going to send to me a sample of some of the coffee that he had purchased from one of these firms which was not grown in India, and he wanted my opinion on that. Well, I am not an expert on coffee, but he assured me that the stuff was pretty poor and it was sold at a price, which considering its quality, was distinctly above its real value. Might I just give one little instance which recently came to my attention in connection with this matter? A personal friend of mine who has a son in Calcutta stopped in his son's Chummary some months ago, and at breakfast table he asked the son, what coffee he was purchasing? Oh, he said, of course, we are purchasing "Kenya Coffee," and the father then asked the son, why? Oh, well, he said, obviously it is the best coffee that you can get, and the father made further enquiries. The son then showed a catalogue of a firm with which he was dealing and he assured him that while "Kenya Coffee" was being sold at Re. 1-12-0, Mysore Coffee was, being sold at Re. 1-8-0 per pound, and so obviously the "Kenya Coffee" was a better coffee than the Mysore Coffee. (Laughter). My friend tried to disabuse his son of his very erroneous knowledge—with what success I do not know.

I shall take this opportunity of discussing another question which, I think, is rather important from the stand-point of the coffee planters, especially at this present juncture.

When you are faced with a serious financial position, it seems to be fairly obvious that it will be necessary for you to turn to other directions, both with regard to increasing your returns from sales, or to decreasing your expenditure. I am of course, absolutely tired of matters of "Commerce and Finance," and I speak with a very great deal of diffidence, but it has struck me—and now I am not speaking in the interests of the Upasi—that three-fourths of the coffee grown in Mysore is grown by the Indian Coffee Planters whose Sponsor, I suppose, I am to-day and it is just as important for them—perhaps more important—that their sales should be increased in value and their expenses reduced, as it is, that this should be done in the case of the European Planters. (Loud Applause).

OPEN MEETING.

The Chairman.—Has any delegate anything further to say on this question?

Captain E. H. A. Travers-Drapes.—Mr. Chairman, a certain amount of support has been promised for coffee propaganda and, I think, we ought to consider whether this promised money would not be of some use. Perhaps in the present state of the coffee market, we would not be in a position to pay down as much as was originally promised, but if anything can be done, I do not think coffee planters as a whole would grudge the moderate expenditure.

As regards sales of coffee in England, from what Mr. Waddington has said, it seems to me that we ought to try to push forward the sale of a "straight" Indian coffee.

Then as regards this country, it appears to me that something ought to be done. Here you have a town like Vellore in the centre of the Madras Presidency, where a man tried to introduce the sale of coffee by retail. The Agents that he offered the coffee to, wrote back to him and said that they could not hold out much hope as this was a Tea drinking town. Now, I ask you, Gentlemen, to give this matter your serious consideration. Vellore is a town almost at the foot of a coffee producing district you might say and it is called a Tea drinking town. (Laughter).

Then I might give you an example of what happened when I was in Central India. We need not go to Northern India. When I was in Central India, I got out a bag of coffee for my own use and the Indian labourers of the Labour Corps, with which I was concerned, wanted to know why this officer was bringing in "Tamarind Seeds." (Laughter). When such ignorance prevailed as regards coffee, I think there is scope for a lot to be done and, I think, we should do something in this matter by sending samples. For instance, you have Messrs. Stanes & Co., and one or two others, who are pushing coffee round about here. Would it cost very much to ask them to send samples, at our cost if necessary, to these places and try and get them to introduce coffee there? Or perhaps we may go further and employ a man on a moderate salary to go round and induce the Agents, Sellers and Private people personally by showing these samples. I know there is a good deal of prejudice against coffee on the score that it is a nuisance to make it. Lots of people imagine that they must have percolators, if they are to get a decent cup of coffee, I think a great deal of good can be done if the public mind was disabused in this direction.

Mr. S. H. Dennis.—Has any money been promised for this propaganda?

Mr. Morris.—I think the Shevaroy's have promised a rupee an acre for the purpose of coffee propaganda.

IN COMMITTEE.

Dr. Leslie Coleman.—Sir, might I say that it is just possible that I have dropped the "proverbial brick." Associated closely as I am with Coffee, perhaps I have failed to give due consideration to the thought that if people took to drinking coffee, they might possibly cease drinking tea, and failed to realize at the moment that after all, this Association is not entirely an Association of Coffee Planters—nevertheless I think there should be scope for persuading the population of India to drink more of coffee, and I certainly would be the last to suggest that coffee should benefit at the expense of Tea. (Hear, hear).

The Secretary.—Sir, in this Association both products have our equal service. We are later going to discuss

increasing the sale of Tea, we should certainly consider the increase of sale of coffee.

The Chairman.—Has any delegate anything further to say under Coffee Propaganda?

Dr. Leslie Coleman.—Might I suggest in this connection that Mr. O'Brien, the Manager of the Mysore Bank, a Bank which is at the present moment, I believe,—and I speak with a certain amount of confidence—very keenly interested in the Coffee Industry. He has, I believe, from a financial standpoint certain pronounced ideas in connection with this matter and I would suggest—if you decide that the Coffee Planters should have a meeting to discuss this question—that Mr. O'Brien be asked to attend.

The Secretary.—He was asked to attend to-day.

Dr. Leslie Coleman.—At a subsequent meeting when it would be possibly convenient for him to discuss this subject.

The Chairman.—Mr. Morris, I would suggest that you have a meeting to-day or tomorrow. It will be a private meeting.

OPEN MEETING.

If no delegate has anything further to say on "Coffee Propaganda," I propose that we go on to the next item in the agenda, that is Articles of Association.

Articles of Association.

Two alterations have been made in the Articles of Association since the last Annual Meeting. The first is that the Articles were amended as decided upon at the last Annual Meeting in order to allow the ex-Chairman to act as a member of the Executive Committee when the Planting Member is a paid representative of the Association. This was agreed to by an extraordinary resolution at a meeting held on the 10th of December 1929 and confirmed as a special resolution at a meeting on the 6th of January last.

Another amendment, which was mentioned in my Address, was made in regard to the Subscriptions decided

upon at the Meeting of the General Committee held on the 27th of February to consider the Budget. This was agreed to at an extraordinary General Meeting he'd yesterday and will be put forward for confirmation at another extraordinary General Meeting to be held on the 15th of September.

Has any delegate anything further to say or to bring forward in respect of the Articles of Association?

I think we will now go on to the next subject, which is Discount on Cheques.

Discount on Cheques.

The Chairman.—This does not appear on the agenda, as notice of this resolution was received later, but a copy was lodged with the Executive Committee, nearly a month ago, and with the permission of the Meeting it may be discussed. I would ask the Mysore delegate to move the resolution.

Mr. S. H. Dennis.—Will you kindly postpone this till later in the meeting?

Rules.

The Chairman.—Then for the moment we will pass on to item No. 11. Rules. The South Travancore Association have tabled a resolution. Mr. Gillespie, you have a resolution to move about the Budget being sent in by the 31st of January.

Mr. W. Gillespie.—The resolution reads as follows:—
“That budgets and recommendations in respect to expenditure for the following year should be sent in not later than 31st January of each year.”

The Chairman.—Who seconds that?

Mr. H. J. Walmesley.—I second it.

Mr. W. Gillespie.—The object of this resolution is that our South Travancore Planters' Meeting, which considers resolutions being brought up at Ootacamund, is usually held at the end of January. The budget figures were, this year, received on the 10th of February.

The Chairman.—Mr. Secretary, would you tell us if it would be possible to send the budget figures earlier?

The Secretary.—Mr. Chairman, can you tell me what the resolution means? "The budget and recommendations in respect to expenditure for the following year should be sent in not later than 31st January of each year." Does it mean sent in to the Secretary of the U.P.A.S.I. or sent in to the District Associations, or sent in to whom?

Mr. W. Gillespie.—It should be really "sent out to District Associations."

The Secretary.—Do not you think it should be altered to read "sent out to District Associations."?

Mr. W. Gillespie.—Mr. Chairman, with your permission, I should like to amend that resolution.

The Chairman.—Has any other delegate anything to say on this resolution?

The Secretary.—Mr. Chairman, you will remember, that until 1927, the Rule was that the Budget for the ensuing year should be submitted to the General Committee before the 1st day of February. Your resolution states that the figures should be submitted by the 31st of January, so that there is only a difference of "One Day." We found it quite impossible to get the Associations to send us reliable figures as to acreage in time to do this, with the result that the Upasi budgets were incorrect. So in 1928 an amendment to the Rules was carried that the Budget for future years shall be submitted to the General Committee before the 1st day of March each year. The effect of the resolution now before you is to cancel the amendment of 1928 and to go back to the old Rule, as there is no difference between the 31st of January and the 1st of February. If you have the Budget sent out by the 1st of February, we cannot prepare a reliable Budget in time.

Mr. O. J. Egan-Wyer.—I propose an amendment.

"That the Budget Meeting of the General Committee be held at Ootacamund not earlier than the middle of March instead of in February."

The Chairman.—Have you a seconder?

Mr. T. Davenport.—I second it.

IN COMMITTEE.

The Secretary.—Mr. Egan-Wyer's suggestion is that the meeting should be held at Ootacamund not earlier than the middle of March. Is it necessary to say "at Ootacamund?" The reason why we had our Meetings at Ootacamund was because they came at the same time as the Sports' Meeting. If they are not to coincide with the Sports' Meeting then I see no reason why we should not have the Budget Meeting at Coimbatore?

Mr. T. Davenport.—My point was not with regard to the place of the meeting, but with regard to the submission of the Budget at the time of the meeting.

The Chairman.—Mr. Gillespie, will you withdraw your resolution in view of the other one?

Mr. W. Gillespie.—Yes, I withdraw mine.

The Chairman.—Well, Gentlemen, Mr. Gillespie has withdrawn his resolution. Mr. Egan-Wyer has moved another resolution and Mr. Davenport has seconded it. It is as follows:—

"That the Budget Meeting of the General Committee be held not earlier than the middle of March each year."

Has any delegate anything to say on this resolution? I suggest that the middle of March is, perhaps, a little too early.

Mr. T. Davenport.—Say at the end of March.

The Chairman.—Say not earlier than the 20th of March.

Mr. T. Davenport.—I think "midd'e" covers that.

The Chairman.—Gentlemen, I suggest that this resolution be so amended that the Budget Meeting of the General Committee be held at any convenient date in the latter half of March each year.

Mr. W. Gillespie.—I am agreeable to it.

Mr. T. Davenport.—I am also agreeable.

OPEN MEETING.

The Chairman.—I would like to hear the views of the delegates on the resolution as amended. If not, I will put the amended resolution to the vote.

Proposed by Mr. O. J. Egan-Wyer and seconded by Mr. T. Davenport:—

“That the Budget Meeting of the General Committee be held at any convenient date in the latter half of March each year.”

Those who are in favour of it? Those against?

The resolution, as amended, is carried.

The Chairman.—Has any delegate anything further to say regarding the Rules? If not, we will go back to the resolution of the Mysore Planters' Association regarding “Discount on Cheques.”

Discount on Cheques.

Mr. E. W. Fowke.—I move:—

“That the Secretary be requested to approach the Banks in the Madras Presidency and Indian States of South India urging for a reduction in the charges levied on the encashment of cheques, which it is considered are unreasonably high.”

The Chairman.—Mr. Fowke, will you speak to the resolution?

Mr. E. W. Fowke.—Well, Sir, some of the Banks charge 12 annas for cashing of cheques.

IN COMMITTEE.

The Chairman.—I do not quite follow you. Do you mean to say 12 annas a hundred?

Mr. E. W. Fowke.—The charges levied for the encashment of cheques by some of the Banks in Madras and in the Indian States are high. The Mysore Bank charges a discount of a quarter per cent. We would like this matter to be gone into.

The Chairman.—Some of the Mysore Banks charge for the encashment of cheques at that rate?

Mr. E. W. Fowke.—Yes. We want the Association to take up that matter.

The Chairman.—With which Bank?

Mr. E. W. Fowke.—With the National Bank and the Bank of Mysore.

The Chairman.—In Mysore?

Mr. E. W. Fowke.—In Madras.

The Chairman.—All right Mr. Fowke. Has any delegate anything to say on the resolution? Mr. Travers-Drapes, will you speak to the resolution?

OPEN MEETING.

Captain E. H. A. Travers-Drapes.—Mr. Chairman, I have nothing much to say on the subject. The idea is that a cheque from Mysore is a foreign cheque, in the same manner that if we send a cheque to be cashed in Calcutta, the Bank would charge a discount of half per cent. I think it is this which Mr. Fowke thinks is rather too high and wishes the Association to take up the matter with a view to trying and getting them to reduce this commission. We have no objection to their charging something, but we consider that half per cent., which it works out to, is too high. We have to pay the same fee if we send a cheque to Calcutta or cash a cheque in Madras which is drawn in Calcutta.

The Chairman.—Have any delegates anything to say on this question? If not, I shall put the resolution to the meeting.

IN COMMITTEE.

The Secretary.—I understand Mr. Fowke to say that the discount charged for cheques drawn, that is Mysore cheques, is quarter per cent. Now Mr. Travers-Drapes has told us that he has been charged half per cent. on the Calcutta cheques. If I am to write to the Banks, I must have facts and figures to go upon. It is no use writing and saying half per cent. is too high a charge.

Mr. E. W. Fowke.—I will supply the figures.

Captain Travers-Drapes.—I have an entry in my note book which I shall look up.

OPEN MEETING.

The Chairman.—Well, Gentlemen, I now put the resolution to the meeting.

Proposed by Mr. E. W. Fowke and seconded by Captain E. H. A. Travers-Drapes:—

"That the Secretary be requested to approach the Banks in the Madras Presidency and Indian States of South India urging for a reduction in the charges levied on the encashment of cheques, which, it is considered, are unreasonably high."

Those in favour? Those against?

The resolution is carried.

Labour Department—Director's Report.

The Chairman.—Gentlemen, we will now go on to the next item, that is, the Labour Department. The Director's Report has been circulated to all members. I would like to know if any delegate wishes to ask anything regarding this Report? If no member has anything to say regarding the Director's Report, we will go on to the Labour Department.

Has any delegate anything to ask or to bring forward any question with regard to the Labour Department?

Mr. T. Davenport.—Mr. Chairman, there is one point which I should like to be cleared up. I think in the paragraph "Collection of Debts" there is an item of Rs. 2 lakhs or so unrecovered on account of Labour having absconded to Ceylon. It seems to me, Mr. Chairman, that in this matter we are really financing our own Labour to our own prejudice. The coolies have received our money as advances, and as far as I understand the position, they seem to be quite free to go away to Ceylon. I would like to know whether it is possible to get legislation on this point which seems to me to be an injustice.

The Chairman.—I would ask Col. Brock to reply to Mr. Davenport.

Lt.-Col. C. H. Brock.—May I ask Mr. Davenport where exactly in the Report he finds that the coolies have gone with Rs. 2 lakhs to Ceylon?

Mr. T. Davenport.—It is in item "C" on page 7.

Lt.-Col. C. H. Brock.—I would point out that the amount shown there is not merely with regard to Ceylon, but also with regard to the Federated Malay States. I have never kept separate Accounts, but I can assure you that the sum involved with the defaulters who have gone abroad is not more than Rs. 5,000 or say even Rs. 10,000. The number of our people, who go out of the country, is so small that you would not have any case to put up for legislation. The Emigration Laws are fairly strict in a way, but we know that they are not very well carried out. Every person who goes to Ceylon is supposed to be brought before a Magistrate of the District or a Village Officer. It is however very easy for defaulters to get there. We do not hear about it, until it is too late. But I do not think you have any real grounds or a serious grievance, sufficient to put up any claim for legislation. We do our best and for some time we did work an arrangement with the Ceylon Commissioner. The present Ceylon Commissioner has issued instructions which have not worked as satisfactorily as the instructions that were issued by the former Commissioner—the reason being that he acts in a double capacity, not only as a Commissioner of the Ceylon Labour, but also as an Emigration Officer—and, therefore, as an Emigration Officer he could not agree to any private scheme of working with us.

The Chairman.—Is that satisfactory, Mr. Davenport?

Mr. T. Davenport.—Thank you, Mr. Chairman.

The Chairman.—Is there any other item under Labour Department?

Mr. A. J. Wright.—Mr. Chairman, I should like to draw your attention to just one thing, with regard to the Labour Department, and that is the amount of the defaulters' debts that are recovered. I do not think a certain aspect of this

work is sufficiently advertised. On page 13 of the Director's Report, figures are given which show that during the last year there were actually cash recoveries to the extent of Rs. 1,13,000. Now as a business concern the dividend of Capital investment is not bad. Further down the Director states that there was a direct saving of Rs. 2,23,000, which he says was 41 per cent. of the total expenditure of the Department. My only object, in rising to address the meeting, is to try and get that point a little bit more thoroughly realized than it is at present. Admittedly subscribers do not receive that money in equal proportion, but there is an absolute cash return of practically 25 per cent. There is a 40 per cent. saving to the planting community. I have talked this matter over with the Director several times and I have always contended that I did not think sufficient publicity was given to these points with regard to the Labour Department.

The Chairman.—I move:—

"That the Report of the Director of the Labour Department be adopted."

Those who are in favour of it? Those against?

The resolution is carried.

Control Committees.

The Chairman.—We will now go on to item No. 26, Control Committees. Of both resolutions, of which notice has been given, the one with regard to the Control Committees comes under the Labour Department, and the other with regard to the Advisory Committees comes under the Scientific Department. In both cases it is suggested to abolish the Committees and, I think, it would be better if separate resolutions are brought forward.

Mr. Boyd, will you please move the resolution dealing with the Control Committees of the Labour Department?

Mr. H. C. Boyd.—My Association would like to move the following resolution:—

"That all Labour Department Control Committees be abolished forthwith."

Economy is the order of the day and I do not think we can afford to spend money on the Control Committees, however good they might be.

Mr. J. H. Cantlay.—I beg to second the resolution. I have nothing to say on the subject, except to associate myself with Mr. Boyd's remarks. I consider that in the hands of the Executive Committee and the staff of the Labour Department we are perfectly safe. There is no need to waste any money on other Committees.

Mr. E. G. Cameron.—Mr. Chairman, I should like to suggest that if Control Committees are abolished, the District Associations be asked to make a yearly report to the Executive Committee on the working of the Labour Department in their districts so that they can ventilate all the grievances they have.

The Chairman.—Mr. Cameron, we must first deal with the resolution with regard to the Control Committees, and if that is passed, then you may move your resolution.

If no delegates have anything further to say, I will put the resolution to the vote.

Proposed by Mr. H. C. Boyd and seconded by Mr. J. H. Cantlay:—

"That all Labour Department Control Committees be abolished forthwith."

Those in favour? Those against?

The resolution is carried.

The Chairman.—Will the Nilgiri-Wynaad move the resolution standing in its name?

Mr. G. W. Fulcher.—The resolution reads as follows:—

"That this Association recognizes the necessity for the reduction of subscription to the U.P.A.S.I. and to further this end urges the abolition of all sub-committees."

This resolution was not intended to be moved at this meeting. It is only an expression of opinion we had some months ago. I beg to withdraw it.

The resolution was, by leave, withdrawn.

The Chairman.—Mr. Cameron, will you bring up your resolution?

Mr. E. G. Cameron.—My resolution runs as follows:—

“That District Associations be asked to make a yearly report to the Executive Committee at their June Meetings, on the working of the Labour Department as regards their District.”

Lt.-Col. C. H. Brock.—Mr. Chairman and Gentlemen, there is no harm in passing this resolution, but I wish members would carry out the Rule which is laid down on page 19 of the Hand-Book: “Subscribers who have any complaints to make with regard to anything concerning the Labour Department should write to the Director about it.” Now if you are going to leave things until the Annual Report, then some of these things may be brought to me when the subject is stone cold and it is too late to do anything. But, I think, everybody here who has been working with the Labour Department, and who has put up a case before me, knows that I have always attended to it and as far as possible I have always given satisfaction. It is difficult to do always what is wanted, but I have always carried out every suggestion that was feasible. I do not know whether reports of District Associations will give any further help. The work can be done much quicker and more thoroughly if they come to me direct at once. Of course, if you have a general complaint of the work of the Labour Department, then you may mention it in your Association Annual Report, which gives the working of your Association in your District for the year. So I do not think it is absolutely necessary to have a resolution of this sort.

The Chairman.—Mr. Cameron, in view of what the Director of the Labour Department has said, do you wish your resolution to be put to the meeting?

Mr. J. H. Cantlay.—Mr. Chairman, in each district each Association has its own District Committee. Surely they are capable of dealing with these ordinary subjects that might crop up. If they are not able to deal with them then they may be forwarded to Colonel Brock to deal with. May I ask Mr. Cameron if he wishes that all complaints should be sent direct to the Director or only such complaints as require his immediate attention?

Mr. E. G. Cameron.—I did not say that.

Lt.-Col. C. H. Brock.—Might I make a suggestion? How would it be if you were to instruct me to write to every District Association about the close of the financial year, and ask direct for your complaints so that I can embody them in my Annual Report? It might be possible to make the Annual Report a little more interesting if the views of each District Association were embodied in it.

The Chairman.—Has any other delegate anything to say about this resolution? If not, I will put it to the meeting.

Proposed by Mr. E. G. Cameron and seconded by Mr. H. Clarke:—

"That District Associations be asked to make a yearly report to the Executive Committee at their June Meetings, on the working of the Labour Department as regards their District."

Those in favour? Those against?

The resolution is lost.

The Chairman.—Gentlemen, there is another item under "Control Committees," and that is, as you have passed a resolution abolishing these Committees, the Rules of the Upasi Labour Department will have to be amended. I, therefore, move from the Chair:—

"That at the next meeting of the General Committee the Rules of the U.P.A.S.I. Labour Department be revised to give effect to the resolution passed at this meeting."

Those in favour? Those against?

The resolution is carried.

Vote By Proxy.

The Chairman.—The Nelliampathy Planters' Association has given notice of the following resolution:—

"That a vote by proxy be accorded to minor Associations at present not in any way represented on the Control Committee of the recruiting area in which they are most interested."

Mr. E. G. Cameron.—I withdraw that resolution, Sir.

The Chairman.—Thank you. Has any delegate anything further to say on this subject? This concludes the business for this morning. I now adjourn the meeting till 2-30 p.m.

Second Day, Tuesday, 19th August, 1930.

(AFTERNOON SESSIONS).

Tea Scientific Department.

The Chairman.—Gentlemen, as is usual on Tuesday afternoon, we shall now take up for consideration “Scientific Departments.” Does any member wish to raise any question on the Scientific Departments generally? If not, we will pass on to Tea Scientific Department. You all have copies of Dr. Shaw’s Report. In June a special meeting of Tea Planters was held at Ootacamund to discuss the future of the Tea Scientific Department, and a special committee was appointed to go into the whole matter and to report at this meeting. I will call upon Mr. H. S. Cameron to read the report of that committee.

Mr. R. Fowke.—Mr. Chairman, might I just ask you if you are closing the subject of General Scientific Departments? Do not you think, Sir, that we might keep this subject open until we come to some decision with regard to this report?

The Chairman.—I am quite prepared to do that, Mr. Fowke, if the meeting has no objection.

Those who are in favour of it? Those against?

Carried.

The Chairman.—Mr. Cameron, would you kindly read your report?

Mr. H. S. Cameron.—I shall be obliged if the Secretary will do so for me.

The Secretary then read the report of the Sub-Committee.

TEA SCIENTIFIC DEPARTMENT.

REPORT OF SUB-COMMITTEE.

At a Meeting of the Sub-Committee appointed to report as to Tea Scientific Department held at Coimbatore Club on the 3rd August 1930, after consultation with Mr. Hilson, Director of Agriculture, Madras, the following resolutions were passed:—

A. *Ultimate Goal of the Scientific Department.*—As it seems that it is not financially possible for the U.P.A.S.I. to develop a fully equipped Experimental and Scientific Department, the Sub-Committee are of opinion that the Executive Committee of the U.P.A.S.I. should negotiate as to our Department being received as a branch of Ceylon Tea Research Institute. (Carried 4 to 2).

B. *Staff.*—If the suggestion as to running the Department in connection with the Ceylon Institute is arranged, for Tea alone no special administrator will be required and as far as your Sub-Committee can judge, the following European Staff should be sufficient:—

One Chemist (not two as at present),

„ Entomologist,

„ Mycologist,

(one of these should be appointed as Senior Officer in India and an Indian Assistant for each Department).

Also expenditure for providing the extra necessary equipment should be voted. (Carried 5 to 1).

C. *Site.*—In event of negotiations with Ceylon being successful the Sub-Committee are agreed that Nellacotta is suitable for a Scientific Station. They consider that the Station should be re-surveyed to ascertain the exact acreage within the present fence. That the question of the extension of the holding should be postponed for the present, but that it is desirable that formal sanction be obtained from the proprietors of neighbouring factories to permit the officers of the Department facilities for conducting experiments with leaf during process of manufacture. (Carried unanimously).

D. In the event of negotiations with Ceylon Tea Research Institute being unsuccessful the Sub-Committee are of opinion that the Nellacotta Station should be continued but that further extensions, not necessarily in the neighbourhood, are desirable. That all the U.P.A.S.I. Scientific Departments be amalgamated under one Administrator and for this appointment a Scientific Officer with experience in Tropical Agriculture and administration be selected further,

as far as the Tea Scientific Station is concerned, in place of the Tea Advisory Committee a small committee consisting of the Active Member, and the Member in waiting for Tea, and one other with experience in Tea to be nominated by the Chairman of the U.P.A.S.I., but preferably one holding or who has held office on the Executive Committee, be appointed to inspect the Station in connection with the Director of Agriculture and report on the working of the Tea Department to the Executive Committee at least twice a year. (Carried unanimously).

The question of "Touring" should, in the Sub-Committee's opinion, be left to this new Committee, but the present programme should be discussed in consultation with the Administrator, if any immediately they take office. (Carried unanimously).

The Sub-Committee is of opinion that more information should be published regarding the activities of the Scientific Department and suggest that the Senior Scientific Officer should submit periodically to the Tea Committee papers for publication. (Carried unanimously).

E. That the Sub-Committee wish to record their appreciation of Mr. Hilson's assistance and interest in their discussion.

(Sd.) H. S. CAMERON.

APPENDIX.

The Sub-Committee are of opinion that the extra staff recommended will necessitate the following expenditure:—

Non-recurring Expenditure:—

Joining Expenses	Rs.	2,500
One Bungalow for 2 Europeans ..	"	20,000
Three new bungalows for Indian Staff	"	4,500
Furnishings for above	"	2,500
Laboratory equipment	"	2,500
Total	Rs.	32,000

Annual Expenditure:—

Entomologist and Mycologist at Rs. 600 each per mensem per annum	Rs.	14,400
Allowances at Rs. 40 each p.m., per annum	"	960
Provident Fund	"	1,440
Three Indian Assistants at Rs. 120 each p.m., per annum ..	"	4,320
Provident Fund	"	432
Total		Rs. 21,552

The Capital Account might be taken out of the credits now available. The vote for the current season's expenditure on the Tea Experimental Station is Rs. 60,195. Of this Rs. 10,000 is a contribution to Tocklai which will not be paid in future, making the local expenditure Rs. 50,195. Of this Rs. 15,434 is contributed by the Madras Government leaving Rs. 34,761 payable by the U.P.A.S.I. If to this is added the extra annual expenditure now recommended, Rs. 21,552, a total of Rs. 56,313 is arrived at, or with allowances for furlough and passages, say, Rs. 60,000. The tea acreage subscribing to the U.P.A.S.I. is, we believe, roughly 120,000 acres, so that a cess of 8 annas per acre would be sufficient to meet all expenditure recommended.

On being asked as regards any probable assistance from outside bodies in financing the Station, Mr. Hilson advised application to the Empire Marketing Board and the Imperial Research Council at Simla.

(Sd.) H. S. CAMERON.

Mr. H. S. Cameron.—I should like to say that, while we consider, with the limited staff now engaged, full advantage cannot be had of Dr. Shaw's and Mr. Jones's special qualifications, we do consider that the Station is run on lines which give a good return for the money spent and would specially mention the valuable investigation now being carried on in analysing the chemical constituents of the Tea Leaf and the changes that take place during the process of manufacture.

Mr. R. Fowke.—Mr. Chairman, I have read through the Budget in the appendix, I see that no provision is made for giving any money to the Ceylon Research Institute. Are they prepared to take us free of all cost? Has no information been obtained on that point?

The Chairman.—I do not think so Mr. Fowke. I think the Committee are awaiting the decision of the meeting.

Mr. H. S. Cameron.—I think the Executive Committee should negotiate with the Ceylon Committee.

The Chairman.—Gentlemen, I would suggest that we take each item of the Sub-Committee's report and get the opinion of the meeting thereon. The first item is: "*Ultimate Goal of the Scientific Department.*" The Special Committee agreed that: "as it seems that it is not financially possible for the U.P.A.S.I. to develop a fully equipped Experimental and Scientific Department, the Sub-Committee are of opinion that the Executive Committee of the U.P.A. S. I. should negotiate as to our Department being received as a branch of Ceylon Tea Research Institute."

The resolution proposed by Mr. H. S. Cameron and seconded by Mr. J. B. Vernede is:—

"That the Executive Committee negotiate with the Ceylon Research Institute as to our Tea Scientific Department being received as a Branch of that Institute."

IN COMMITTEE.

I would like to hear the views of the members generally.

Mr. H. S. Cameron.—May I ask if the Executive Committee has an idea that the negotiations would be favourably looked upon by the Ceylon Committee? I myself visited the Research Station and I was assured by Mr. Coombs, whom I know personally, he is the Chairman of the Tea Institute, that any demand that is made will receive a sympathetic hearing.

The Chairman.—I do not think the Executive Committee have any information, but they are glad to hear what you have just said.

Mr. H. S. Cameron.—What I have just said is entirely unofficial and the information I obtained is entirely unofficial also.

The Secretary.—You will remember that Mr. Pinches reported to us on his way Home, and I understood him to report that Ceylon would not consider affiliation, but evidently there is some mistake there, because in the proceedings of a meeting of the South Indian Association in London held on the 28th July, it is stated that Mr. Pinches said that he visited the Ceylon Station on his way Home and had written to Mr. Waddington informing him that Ceylon was willing to affiliate with the U.P.A.S.I. if the latter were willing to join the Ceylon Research Institute. He is reported to have added that personally he would protest against breaking away from Tocklai altogether.

Mr. H. S. Cameron.—I took the same view of Mr. Pinches' letter, and I thought he meant that Ceylon was not sympathetic. There is however no doubt that we did receive most sympathetic treatment from them.

The Chairman.—I see, Mr. Cameron, that Mr. Pinches has suggested that we should not sever our connection with Tocklai.

Mr. H. S. Cameron.—This subject was not on the Committee's Terms of Reference and therefore we did not discuss it. I am quite willing to ask them what their views

are about Tocklai—whether we should give them some subscriptions but not as much as Rs. 10,000?

The Secretary.—I was under the impression that the Committee had to take into consideration the recommendations made at the Tea Planters special meeting, and one of them was that we should cut ourselves away from Tocklai.

Mr. C. L. Greig.—In view of Mr. Hilson's visit to the station and his criticisms on the Sub-Committee's report, would not it be to the advantage of all concerned, that we had Mr. Hilson's opinion on the subject as well?

The Chairman.—They were not criticisms Mr. Greig.

Mr. H. S. Cameron.—We submitted our draft recommendation to Mr. Hilson—then he was kind enough to visit the station.

The Chairman.—Would you kindly give us your ideas Mr. Hilson?

Mr. G. R. Hilson.—Well, Sir, my advice to the Committee on this particular point was that they should not ask for affiliation with Ceylon—it appeared to me that they could get all the information that was required from Ceylon without affiliation. I asked whether affiliation with Ceylon would not involve a contribution to Ceylon and on that, of course, I could get no definite answer. But what I said was, that it appeared to me, that if the U.P.A.S.I. had an efficient Research Section of their own, which was producing satisfactory results and doing good work—the prospects were that Ceylon would be willing to give you all the information that it had at its disposal for nothing—in return for the information that you would be prepared to give, which you had at your disposal.

Mr. H. S. Cameron.—There is an idea that Ceylon has got a full equipment which we can never afford. Therefore if we were a Ceylon Branch, we could send our Scientific Officer there. I stand, subject to correction. I believe the equipment was a very expensive item and there are certain facilities which we can never have.

The Chairman.—Mr. Cameron, I would like to ask you, when the Sub-Committee asked the Executive Committee to negotiate with the Ceylon Institute, as to our Department being received as a Branch of that Institute, what, exactly they meant by "Branch?"

Mr. H. S. Cameron.—Those are the questions for negotiation.

The Chairman.—Does that mean that we would be in a subordinate position?

Mr. H. S. Cameron.—Instead of the Executive Committee a Special Committee might be appointed to negotiate with Ceylon; because the Executive Committee represents Tea, Coffee and Rubber put together and, I think, this Committee, which should negotiate with Ceylon, should be a Tea Committee. I would rather put it this way: "That the Executive Committee should appoint a Committee to negotiate."

The Chairman.—Mr. Cameron, I do not think we want to set up any more committees. I think the Executive Committee can do that. They could appoint the Active Member for Tea and the Member in Waiting.

Mr. H. S. Cameron.—Surely.

The Chairman.—Would there be any objection to amending the resolution so as to make it:—

"Our Tea Scientific Department being affiliated with the Ceylon Tea Research Institute."

Mr. H. S. Cameron.—That was put to the Sub-Committee and rejected, Sir.

The Chairman.—And the Sub-Committee wants the words "as a Branch of Ceylon Tea Research Institute" to stand?

Mr. H. S. Cameron.—Yes.

OPEN MEETING.

The Chairman.—I should like to have the opinion of the delegates with regard to this matter. We have got many Tea Associations. There is a resolution now before the meeting on the recommendation of the Sub-Committee:—

“That the Executive Committee negotiate with the Ceylon Tea Research Institute as to our Tea Scientific Department being received as a Branch of that Institute.”

Mr. R. N. W. Jodrell.—The negotiations might be put in hand, but if they entail increased expenditure, the question might be referred back to the District Associations.

The Chairman.—Well, I suppose there will be time to do that after a reply is received from Ceylon.

Has anyone anything further to say on this resolution? If not, I will put it to the meeting.

Proposed by Mr. H. S. Cameron and seconded by Mr. J. B. Vernede:—

“*That the Executive Committee negotiate with the Ceylon Tea Research Institute as to our Tea Scientific Department being received as a Branch of that Institute.*”

Those in favour? Those against?

The resolution is carried.

The Chairman.—Then, Gentlemen, we go on to item B.—“*Staff.*” If the suggestion as to running the Department in connection with the Ceylon Institute is arranged, for Tea alone no special administrator will be required, and, as far as your Sub-Committee can judge, the following European Staff should be sufficient:—

One Chemist (not two as at present).

One Entomologist.

One Mycologist.

(One of these should be appointed as senior officer in India and an Indian Assistant for each Department).

Also expenditure for providing the extra necessary equipment should be voted."

I propose from the Chair :—

"That this recommendation of the Sub-Committee as to the Staff be adopted by the meeting."

Mr. H. S. Cameron.—The Sub-Committee only suggests this, but what it really means is that the Executive Committee should deal with Ceylon, and should have an absolutely free hand. These recommendations were put in, more or less, with the idea of considering how much money we would have to budget for. But the idea was to leave the final arrangement entirely to the meeting for negotiating with Ceylon. We thought it would be a great pity if the Committee were in any way bound down to certain terms, while negotiating with Ceylon. Evidently, it must be a "give and take" arrangement and a friendly discussion between them all, and I should be sorry if the meeting should feel bound in any way by the recommendations of the Sub-Committee.

The Chairman.—Do you think, Mr. Cameron, that this matter should stand over for the present until a reply is received from Ceylon?

Mr. H. S. Cameron.—I think so. If it means an increase in expenditure, then it should be referred back to the District Associations to discuss the matter.

Mr. R. N. W. Jodrell.—I think the District Associations should be given an opportunity of discussing the matter. (Hear, hear).

The Chairman.—A special meeting of Tea Planters was held at Ootacamund and the idea was that the Sub-Committee's report should be referred to the Executive Committee and then sent to the District Associations before coming up before this meeting. This matter can stand over, and in the meantime this report will be submitted to the District

Associations. Well, is the meeting in favour of the question of the Staff standing over until a reply is received from Ceylon?

Those in favour? Those against?

Carried.

The Chairman.—Mr. Cameron, are there any other items in the Sub-Committee's Report upon which we should vote now?

Mr. H. S. Cameron.—Yes, item No. D.

"In the event of negotiations, with Ceylon Tea Research Institute, being unsuccessful, the Sub-Committee are of opinion that the Neillacotta Station should be continued, but that further extensions, not necessarily in the neighbourhood, are desirable. That all the U.P.A.S.I. Scientific Departments be amalgamated under one Administrator, and for this appointment a Scientific Officer, with experience in Tropical Agriculture and administration, be selected; further, as far as the Tea Scientific Station is concerned, in place of the Tea Advisory Committee a small committee, consisting of the Active Member, and the Member in Waiting for Tea, and one other with experience in Tea, to be nominated by the Chairman of the U.P.A.S.I. but preferably one holding, or who has held office, on the Executive Committee, be appointed to inspect the Station in connection with the Director of Agriculture and report on the working of the Tea Department to the Executive Committee at least twice a year."

"The Sub-Committee is of opinion that more information should be published regarding the activities of the Scientific Department and suggest that the Senior Scientific Officer should submit periodically to the Tea Committee papers for publication."

I think that should be discussed, in case the Committee does not come to any terms with Ceylon. In any case, it will take some time to complete negotiations with Ceylon and, I think, the Sub-Committee are of opinion that a Tea Committee should be appointed or sanctioned quickly to take

the place of the Tea Advisory Committee, which I gather from the members of the Sub-Committee and the members of the Tea Advisory Committee, they find rather cumbersome in working.

Mr. H. J. Walmsley.—Mr. Chairman, does this paragraph affect other products than Tea. I should like to take up the question of the appointment of a Senior Scientific Officer to administrate as far as Rubber is concerned. That means extra expense, and at the present time it is impossible, but I have a suggestion to make. I am not authorized to make this suggestion by my Association, and, of course, I could not commit them. But I feel it is more than likely that, within the next two years, there will be a tremendous acreage shut down altogether and we shall not be able to maintain a separate Scientific Department at Mundakayam. We have got buildings and apparatus well fitted up. We have got a new fully qualified Scientist coming, and I understand he would be very useful for Tea and I suggest we might discuss whether we might not amalgamate the two Scientific Departments. I think that so far as Rubber is concerned, we have benefited tremendously from the Scientific Department and there is nothing that we should like less than be forced to shut down, but I very much doubt whether we can carry on separately.

The Chairman.—I am not quite clear Mr. Walmsley. Does your proposal do away with the proposal to have a Tea Advisory Committee—a small committee consisting of an active member, a member in waiting for tea and one other member?

Mr. H. J. Walmsley.—Could you possibly have one Tea man and one Rubber man? I am not putting up any definite proposal. I am not authorized to do so. I am only making a suggestion.

Mr. H. S. Cameron.—Could we have a special committee for each station—a special committee for the Rubber Station and a special committee for the Tea Station on the same lines, of an active member and a member in waiting? Would Mr. Walmsley accept that?

Mr. H. J. Walmsley.—Yes, certainly.

Mr. H. S. Cameron.—I do not think we are in favour of this fearful distinction between Tea, Rubber and Coffee. We are all planters. (Applause.)

IN COMMITTEE.

The Chairman.—Mr. Cameron, will you please propose a resolution about a small committee?

Mr. H. S. Cameron.—Do you wish me to propose a recommendation under item No. D?

The Chairman.—Yes.

Mr. S. H. Cameron.—I would accept an amendment from Mr. Walmsley.

Mr. H. J. Walmsley.—I am not in a position to put up a definite resolution.

Mr. H. S. Cameron.—It is only a recommendation.

The Chairman.—Surely the Executive Committee of the U.P.A.S.I., which is composed of both Tea and Rubber members, can do the needful.

Mr. H. S. Cameron.—Do you think all the members of the Executive Committee need visit all the stations twice a year?

The Chairman.—No. Do not you think that for the present the Executive Committee can do the work?

Mr. H. S. Cameron.—I do not doubt it for the moment. At the same time I do think that people specially interested in a product should visit the experimental station of that product. It may seem contrary to what I said before, but this visit is in connection with a special interest.

The Chairman.—Will you kindly put up a resolution as to a small committee for the Tea Station only?

Mr. H. J. Walmsley.—I do not think, I have made myself quite clear. My idea is that we should not have an entirely Rubber Station at Mundakayam any longer. One of our officers can be stationed there. There is accommodation available for that purpose. You may consider the case of either Rubber or Tea, whichever is more suitable.

The Chairman.—Mr. Walmsley, I take it what you mean is that there should be one U. P. A. S. I. Scientific Department for all products.

Mr. H. J. Walmsley.—Yes, although I only mentioned Tea and Rubber, Sir.

The Chairman.—Will you propose a resolution?

Mr. C. R. T. Congreve.—Mr. Chairman and Gentlemen, I should like to congratulate Mr. Walmsley for bringing up this proposal. I would like to propose to the Executive Committee, that all the Scientific Departments should try to work together as one Department. It cannot be done at this meeting, as there are a great many conflicting interests in the scheme. It would, of course, be difficult to amalgamate all under one head, but, I think the Executive Committee are a capable body able to deal with the matter, so that we cannot do better than leave negotiations in their hands, to see whether it is not possible to get the whole of our Scientific Departments under one head and work them together in harmony and goodwill.

The Chairman.—Mr. Congreve, do you want to propose a resolution?

Mr. H. S. Cameron.—I think Mr. Congreve's resolution is very much the same as my recommendation.

Mr. C. R. T. Congreve.—The first object is to aim at the affiliation of all the Departments,

Mr. H. S. Cameron.—This was considered by the Sub-Committee, and it was felt that in the matter of Tea Research, Ceylon had such facilities, which we could never expect to have. How can you amalgamate the different departments and ask the Executive Committee to deal with the Ceylon Tea Research Institute as representing our Scientific Departments and not our Tea Scientific Department alone?

The Secretary.—Mr. Chairman, regarding this recommendation "D" do you think we can combine in one resolution that in addition to accepting recommendation "D", made by the Cameron Committee, the Executive Committee do enquire as to the possibility of combining the Tea and Rubber Scientific Departments.

Mr. H. S. Cameron.—I want Coffee.

The Secretary.—As for Coffee, we have no Coffee Station of our own. Mr. Mayne is now working at the Mysore Experimental Station under the guidance of Dr. Coleman. I do not think the time has come for us to consider amalgamating Mr. Mayne with other Scientific Departments. A day very likely will come later, when we shall want to do so.

Mr. H. J. Walmesley.—Mr. Chairman, I am very sorry. I want to make my position a little clearer. Mr. Congreve did propose this last year, but the recommendation at the time would have been a rather expensive addition to the Scientific Departments of our own. It would strain our resources and we cannot continue indefinitely and pay for a Director as well. We cannot afford it. What shall we do? We will throw out a suggestion, that our Scientific Station can no longer remain purely as a Rubber Station, because it is out of the question for us to incur more expense on Rubber. We must make that clear. We want the services of a Mycological Station and a Scientific Officer.

OPEN MEETING.

The Chairman.—Gentlemen, the resolution before the meeting is:—

“That recommendation “D” made by the Tea Experimental Station Sub-Committee be accepted and that the Executive Committee enquire as to the possibility of combining all U. P. A. S. I. Scientific Departments.”

Mr. A. E. J. Nicolls.—On behalf of Coorg and Mysore I oppose that resolution. It is true this resolution only says: “enquire as to the possibility of combining all U. P. A. S. I. Scientific Departments.” But I should like to make our position clear before this goes into a resolution which is passed, that coffee does not wish to join in a scheme of combined Scientific Departments.

Mr. C. R. T. Congreve.—The resolution merely means that enquiries should be made whether it is possible or not possible to do so. It does not bind anybody to anything.

The Chairman.—Has any other delegate anything to say on the matter? If not, I will put the resolution to the meeting.

Proposed by Mr. H. S. Cameron and seconded by Mr. C. R. T. Congreve:—

"That recommendation 'D' made by the Tea Experimental Station Sub-Committee be accepted and that the Executive Committee enquire as to the possibility of combining all U.P.A.S.I. Scientific Departments."

Those in favour? Those against?

The resolution is carried.

The Chairman.—Mr. Cameron, is there anything else under the Sub-Committee's report which you would like to be discussed?

Mr. H. S. Cameron.—I have got nothing else to say except this. Mr. Hilson paid us a two days' visit. He came down to Coimbatore. We tried his patience a good deal. He listened to us for a very long time. I would like a special vote of thanks to be proposed to him by this Association, Sir.

The Chairman.—Gentlemen, I would like to express, on behalf of the Association, our hearty thanks to Mr. Hilson for all that he has done for us. (Applause.)

The Chairman.—There is one other matter which I should like to bring up and that is about the contribution to Tocklai. Would some one propose a resolution as to reducing or doing away with the contribution to the Scientific Department of the Indian Tea Association?

Mr. C. R. T. Congreve.—I should like to propose that the Executive Committee be empowered to negotiate as to reducing our present contribution to Tocklai. I have been reading a report of a meeting of the South Indian Association in London—as I expect other gentlemen in this room have done—and they also recommend a reduction of the subscription. In my opinion it would be a very great pity to sever connection with any Tea Scientific Association. As to the amount of reduction, I think that matter should be left entirely in the hands of the Executive Committee. They are a body of planters

and we should have—and I think we do have—full confidence in them and trust that they will do whatever they can. I notice that Rs. 2,500 per annum has been suggested. Our Executive Committee may possibly find this sum. I would rather not mention any figure, but I would just ask the Executive Committee to enter into negotiations with the Tea Association with reference to continuing the affiliation with Tocklai on a reduced subscription basis.

Mr. R. N. W. Jodrell.—Mr. Chairman, I should like to propose that we cease subscriptions entirely to the Indian Tea Association. I do not think there is any amalgamation in existence nor are we severing our connection. We maintain it, but we practically get nothing from it by way of compensation for the Rs. 10,000 that we pay.

Mr. H. J. Walmesley.—I quite agree.

Mr. R. N. W. Jodrell.—I do not see why we should subscribe to Tocklai any more than Tocklai should subscribe to us. Why cannot we be amalgamated on equal terms? Why should South India be considered inferior?

The Chairman.—Do you want to propose an amendment, Mr. Jodrell?

Mr. R. N. W. Jodrell.—Yes Sir.

The Chairman.—Mr. Congreve, before putting the amendment to the vote, could you tell me why there is need to subscribe anything at all, either to Tocklai or to Ceylon? If you are going to reduce the subscription to Rs. 2,000, it is so small that it will not make any difference to them if we do not subscribe anything at all. There must be a reason for it, or they would not have passed that resolution in London.

Mr. G. R. Hilson.—With regard to this question of contribution, Mr. Jodrell has expressed very definitely the position in regard to the South Indian Association and Tocklai. What I put before him was with regard to the South Indian Association and Ceylon and it appeared to me that it would be possible for all the three Bodies—Tocklai, South India and Ceylon—to co-operate in a programme of work, so that the one could—as it were—fill up

the gaps in the other without there being any question of contribution from one to the other. Officers from the one Body could go and see what the officers employed by the other Bodies were doing, and in the event of any particular point arising, which required special investigation, it could be carried out by one Association or the other. Then the question of contribution for carrying out this particular piece of work would arise.

The Chairman.—Well, Gentlemen, time is short. Has anybody anything else to say? If not, I will put the amendment to the meeting.

Proposed by Mr. R. N. W. Jodrell and seconded by Mr. J. H. Cantlay:—

“That the U.P.A.S.I. take the necessary steps to cease contributing to the Scientific Department of the Indian Tea Association at as early a date as possible.”

Those who are in favour of it? Those against?

A Poll, being demanded, was taken with the result that the amendment was declared to be lost.

I will now put the original resolution to the meeting.

Proposed by Mr. C. R. T. Congreve and seconded by Mr. R. Fowke:—

“That the Executive Committee be empowered to negotiate with the Indian Tea Association with reference to the continuance of the affiliation of the U.P.A.S.I. with the Tea Scientific Station at Tocklai on a reduced subscription.”

Those in favour of it? Those against?

The resolution is carried.

Coffee Scientific Department.

The Chairman.—Gentlemen, is there anything else under Tea Scientific Department which you wish to bring forward? If not, we will pass on to the next item, which is Coffee Scientific Department, and I will ask Dr. Coleman to speak to you.

Dr. Leslie Coleman.—Mr. Chairman and Gentlemen, I have at the beginning rather a small unpleasant duty to

perform. Sir, I listened with great admiration to your excellent Address yesterday, but I regret to state that I noticed one small error, which had crept in. In referring to the Coffee Scientific Department as reported in to-day's *Madras Mail*, you have been reported to have said "the Coffee Station continues to function satisfactorily under Mr. Mayne, supervised by Dr. Coleman."

Now, Sir, I am quite sure that that is not what you meant, or, at least, what the United Planters' Association think, is the actual situation. I wish to take this opportunity of correcting a wrong impression which may have been created. I think most of you know that the Coffee Experimental Station is financed by the Mysore Government, with the aid of a contribution, not exactly voluntary, and in every case from the Mysore Planters. An arrangement was reached—an amicable arrangement—and I think, a very satisfactory arrangement was reached between the United Planters' Association and the Mysore Government whereby Mr. Mayne should work there under my direction. That, I think, should be quite definitely understood and, I am sure, is understood by the Coffee Planters who are interested in the Station.

Now, Sir, that brings me to one other small point, which I feel I must discuss here. I have now been working in Mysore for 23 years, and although I do not want to boast I think I have a better understanding of the Indian Official mind, at least of an Indian State, than any other person present. Now we have had, this morning, evidence that the Mysore Government is particularly jealous of her State and her reputation and I would ask you, Gentlemen, who are interested in Coffee—and I take it that even those who are interested in Rubber are also interested in Coffee at least, that is what we have been assured of by Mr. Cameron—would help me as far as it lies in your power to avoid any small cause of irritation which might arise. May I point out in the first instance that we have a Manager—and I believe a very efficient Indian Manager on the Station—a Graduate of the Edinburgh University, and a man who has had a considerable number of years' experience in Coffee Planting. Might I extend a most hearty invitation to every Planter of South India to visit that Station, as also every gentleman who is interested in Coffee. I would tell them that in doing so, they should not make the mistake, which the Chairman seems to have

made, in supposing that that Station is under the charge of Mr. Mayne. I would request them to visit the station and to get the service of the Manager there to show them round the Station. Now instances have been brought to my notice when this has not occurred and you can understand that I must be jealous of the position of my Staff and that I cannot, for a moment, treat my Indian Staff any differently to what I would treat the European Staff working under me. I simply throw this out as a suggestion, and I am perfectly certain that any mistake that has been made in the past has not been made intentionally but it has been purely an inadvertence.

Now, Sir, we have had a discussion of the possibility of organizing an All United Planters' Association Scientific Department. I agree with Mr. Hilson's remarks, that in future you can get and you should get the closest co-operation between all Scientific workers who are working towards the same end, no matter what crop they are working—and I can assure you on behalf of the Mysore Government and on behalf of the Mysore Department of Agriculture, that that co-operation will be available to you here in Mysore as long as you wish to avail yourselves of it. (Hear, hear.)

IN COMMITTEE.

Now, Sir, as regards the work of the Station, I should like to speak in committee and I hope my remarks will not be reported. This matter has been brought to my attention. It was intimated to me by a very old Member of this Association that when the Coffee Advisory Committee met—when your representative on the Coffee Advisory Committee was appointed, I believe a year ago, the impression was that I desired that a Mysore Planter or one of the Members of your Association from Mysore should be appointed as your representative. Now I certainly never gave that impression to any one and, as a matter of fact, I personally very much regret the appointment of two Mysore men on the Advisory Committee, because, as you know, the Mysore Planters' Association itself appoints one member and you appoint another. Now the member that you appointed is one of my very best personal friends. I can think of no one, whom I would rather have on the Advisory Committee than he, but the net result is that every time we hold a meeting only Mysore Planters come and, I think, the number of non-Mysore

Planters, who have visited that Experimental Station, up to the present, must be extremely small. In fact, I do not know of any, but there must have been some very, very few indeed. So far as I am concerned, I would welcome a change, and I would welcome even a definite decision on the part of this Association that your member should be invariably a non-Mysore Planter. This would ensure one member on our Advisory Committee who was not a Mysore man.

Now you have already had placed in your hands, I believe by Mr. Waddington, two short Bulletins published by the Coffee Experimental Station. I do not take it that the first of these was prepared for a definite purpose. I refer now to a short Descriptive Pamphlet which I wrote explaining in the simplest language I could muster, what is being attempted at the Station. That, I may tell you, was prepared, primarily, as a sugarcoated-pill which the Mysore Government had to administer to the Mysore Coffee Planters in the shape of re-levying the Coffee Cess and, I believe, was distributed widely, both to the members of the Legislative Council and the Mysore representatives on the Assembly. It was written under the orders of the Government and an opportunity was taken to inform you of what we were informing the Mysore Planters. You had the advantage, of course, of not having the pill but having the sugar. They got them both. During your Sessions of to-day and yesterday, we have been extremely busy, attempting to get through the Press two further Bulletins of our Station. One of these deals with the work that has been going on for the last five years. In other words, it is practically a summary of the work that has been undertaken for five years. Now it is not a very expensive volume and, in fact, you will find that it recapitulates to a certain extent the short descriptive pamphlet, which was issued earlier. But I can assure you—I think quite safely—that the next five years will show a considerably increased amount of useful work than the last five years. The reasons are several, one of them being that in the initial stages a Station cannot show many scientific results.

One word about the second publication. This is the first publication of the Coffee Scientific Officer, and you can understand that I was particularly anxious to have this ready for distribution at this meeting. This represents

a year's work, and a year's very strenuous work, on the part of Mr. Mayne. It is an honest study of coffee leaf disease. I asked Mr. Mayne to put this in as simple a form as possible, so that even a non-scientific man would be able to grasp its meaning. In a nut-shell, Mr. Mayne, I think, has shown, fairly conclusively, that the views which I have held with regard to coffee leaf disease and the time at which spraying can be most advantageously carried on, are erroneous. I did believe—and I have advised Coffee Planters—that spraying against coffee leaf disease could best be done after the monsoon. After this very careful study which Mr. Mayne has made it seems almost certain that a pre-monsoon spraying will be more effective than the post-monsoon spraying and, I believe, a certain number of Planters have already discovered that my original advice was faulty in regard to this, and I admit that I am still young enough to make mistakes, more especially having studied the matter very carefully on the spot. That, I assure you, Gentlemen, is one additional advantage of the necessity of having a man on the spot to devote his whole time and who knows something about his job.

Now, Sir, I consider this Bulletin will be of very great assistance to those Planters who propose to take up spraying. I believe it will save them a great deal of money. Along with this, if you make an investigation of the cost of spraying, it will materially benefit you. My own feeling is that, under the present conditions and in certain areas, the only coffee which is going to weather the storm is that where a man has been spraying, and the man who thinks that, at the present moment financial conditions are such as definitely prevent him from taking up this work is, I think, mistaken.

Now I wish to draw your attention to one or two points. I refer to Manurial Experiments. We have now a definite indication and the figures for five years are given in this Bulletin. The Coffee Planters who still believe that they should use steamed bones and raw bones will have to revise their opinion. I believe the days for steamed bones and raw bones are gone. You have got to take to manures, which give you a larger return for a smaller expenditure and a more immediate return for the same expenditure, because there is one thing which you must remember, if you are going to get a return in one year

instead of three years and the same return, it is obviously better to get the return in one year.

There is one other point which I should like to mention. In the past year I have been inundated by letters from Planters in connection with their supply of Lime for spraying and I have been seeing what kind of Lime they have been buying for this purpose. The initial material they use is shells. A few people use Cunker Lime. Now Shell Lime is a purely formed Lime, but the unfortunate thing seems to be that in 99 cases out of 100, the Shells do not burn and, therefore, you might as well not use them at all. That means you are paying for 75 per cent. of material which is not used by you, and you are also paying for the carriage of that 75 per cent. which cannot be used effectively as manure. I do not know whether the Local Association can take action, but I should certainly very strongly advise them to insist on a Chemical Analysis of Lime used for spraying purposes, and without which, as far as I can see, you are likely to be landed into very great expense with no return. Most of this Lime comes from the West Coast, where evidently the expenditure on fuel is small. They burn just as they like.

Now, Gentlemen, I have nothing more to say. If you just read those two Bulletins they contain matter which is worthy of your consideration.

I thank you again, Gentlemen, for the very kind way in which you have treated us and I wish again to assure you that, whatever happens to your Scientific Department or Departments in future, as long as you treat us in Mysore with ordinary courtesy, we shall be delighted to co-operate and help you in every way possible. (Loud Applause.)

The Chairman.—Gentlemen, is there any other item under Coffee Scientific Department which you wish to bring up? If there is nothing further, I would ask the Rubber Members if they would kindly allow me to postpone this subject.

Mr. C. B. T. Congreve.—Mr. Chairman, I should like to express our thanks to the Mysore Government and to Dr. Leslie Coleman for the excellent work they have done so far, and to Mr. Mayne, the Scientific Officer, for

investigation and all that he has done for us. (Applause.) A short time ago I personally visited the Coffee Station at Balehonnur and the Station is well worth seeing. Everything has been done on up-to-date lines, and the work, which Mr. Mayne showed me almost made my hair stand on end. If you visit this Station often, you will have some idea of the work which is done and the careful way in which it is done.

I have nothing more to say, Gentlemen, except on behalf of all to thank Dr. Leslie Coleman, Mr. Mayne and the Staff that is working under Dr. Leslie Coleman for the excellent work that they have done. (Applause.)

Dr. Leslie Coleman.—Mr. Chairman and Gentlemen, I shall convey the expression of thanks to the Mysore Government, but, I presume, you will convey it in an official way to the Dewan of Mysore.

I thank you very heartily indeed for your kind words with regard to myself and I should like to add just one more thing, it is this:—I wish also, on behalf of the Mysore Department of Agriculture, to express our appreciation of the very tactful manner in which Mr. Mayne has worked during the two years that he has been on that Station. A man lacking in tact, working under the conditions in which Mr. Mayne has worked, would have put his foot into it seven times a week and probably one hundred times a day! Now it speaks very well for Mr. Mayne, and it also speaks very well for the officers working directly with him, for, I tell you that as far as I have seen, their relationship has been most cordial. I have not asked Mr. Mayne, but I think Mr. Mayne would tell you that, if you order him to break away from our Station, he would be sorry to go. We are trying to give him every opportunity that is possible. I can assure you that I have nothing but admiration to express for the most tactful manner in which he has lived and worked under the conditions that exist. (Loud Applause.)

The Chairman.—Well, Gentlemen, if there is nothing further under the Coffee Scientific Department, I would ask the Rubber Members if they would mind my postponing the Rubber Scientific Department till to-morrow.

I now adjourn the Meeting till to-morrow morning at 10 o'clock.

Third Day, Wednesday, 20th August, 1930.

(MORNING SESSION.)

The Meeting re-assembled at 10 a.m.

Rubber Scientific Department.

The Chairman.—Gentlemen, we will go back to the item which we had not finished yesterday afternoon, namely, the Rubber Scientific Department. You will have seen from the Report of the Executive Committee that Mr. R. A. Taylor, B. Sc., of the Rubber Research Institute, Neboda, Ceylon, has been appointed to fill the vacancy caused by the retirement of Mr. H. Ashplant. Since that report has been issued, Mr. Taylor has informed the Secretary that he will take up his duties from the 1st of January next.

Does any delegate wish to speak on the Rubber Scientific Department?

Mr. G. McPherson.—Mr. Chairman,—I would like on behalf of the Rubber Association to express our appreciation of the services of Mr. G. N. Frattini. He has carried out his duties in a very able manner. He took over at very short notice from Mr. Ashplant and has carried on all the experimental work. We hope he will give us his views at this meeting as Mr. Ashplant has not yet published his report. I regret that, owing to the serious crisis that we are passing through, we may, perhaps, be losing his services.

The Chairman.—Has anybody anything to say about the Rubber Scientific Department? If not we will now take up item No. 35.

Tea Advisory Committee.

I must, first of all, point out that we have neither the power nor the wish to abolish the Southern India Branch of the Rubber Grower's Association and the only Coffee Advisory Committee is that of the Mysore Station, ruled by the Mysore Agricultural Department, over which we have no control, except that we elect a member to serve on that committee.

Mr. Wright, will you move your resolution?

Mr. A. J. Wright.—Mr. Chairman, I beg to move:

"That the Tea Advisory Committee be abolished."

We have been considering, yesterday, the Cameron Committee's report in which it is suggested that a much smaller body should be appointed to take the place of the present Tea Advisory Committee. I have nothing further to say on the subject except to express our thanks to those representatives of the Tea Advisory Committee who have given a good deal of their time to the planting interests of the Association and to the Tea Experimental Station generally. (Applause.)

The Chairman.—Who seconds this resolution?

Mr. R. N. W. Jodrell.—I have much pleasure in seconding this resolution.

The Chairman.—Has any member anything else to say under this item "Tea Advisory Committee?" If not, I will put the resolution to the meeting:—

Proposed by Mr. A. J. Wright and seconded by Mr. R. N. W. Jodrell:—

"That the Tea Advisory Committee be abolished."

Those in favour? Those against.

The resolution is carried.

Tea Scientific Department.

Mr. A. J. Wright.—Mr. Chairman, I should like to have your permission to speak regarding the Tea Scientific Department.

The Chairman.—With the permission of the meeting, you can re-open the question, Mr. Wright. I take it that the meeting has given permission.

Mr. A. J. Wright.—Mr. Chairman, I asked for this permission in order to bring to notice an omission that we made yesterday. After discussing the report of Mr. Cameron's Sub-Committee we passed on. I now rise to express our appreciation of the services rendered by Dr. W. S. Shaw and Mr. Jones to the Tea Industry in Southern India also to Mr. Cameron for his services.

They have seen a good number of Tea Districts of the Association and we have been brought into close touch with them in many ways, but I know I am voicing the opinion of the Upasi when I say that these officers have done all that they could do for us. I was also struck yesterday with a remark in Dr. Leslie Coleman's speech that five years is too short a time to expect results from experiments. However, we have been assured by Mr. Hilson that as an Industry we are getting a very good value for our money from the Tea Experimental Station, which is gratifying, and we hope to go on getting even better results. (Applause.)

Mr. C. R. T. Congreve.—Mr. Chairman, there is still another item that I should like, with your permission, to bring up, and that is, to express our gratitude to Mr. Cameron and the members of his committee who worked so hard and so well for our Association. It is no small job that we gave them to do. It meant a very great deal of travelling and a great deal of work and, I think, we owe them a debt of gratitude. They carried out the onerous job we gave them to do and I would like, on your behalf, to express our thanks to them for all that they have done for us. (Applause.)

The Chairman.—Dr. Shaw, could you give us a short address?

Dr. W. S. Shaw.—Mr. Chairman and Gentlemen, I would just like to give you a very short sketch of the work, which is being carried on at the Experimental Station. The actual field work and experimental work have been fully reported on in my Annual Report, which is before you, but I want, if possible, to discuss the tannin work which is being done. There is a publication in front of you which represents the first publication on this matter. When I first commenced to study Tea at Toeklai, I endeavoured to apply the method used for estimating the tannin in Tea. The results to my mind were not satisfactory. In other words, the method was open to significant errors which did not satisfy me at all. It was, therefore, necessary to devise a new method, which seems to have produced very good results so far.

The next problem, which confronted me, was to try and establish its accuracy. That was not easy because it meant comparing it with a method which contained

inherent discrepancies. I, therefore, had to turn to the preparation of Tea tannin itself as the only means of getting over this obstacle. This was an extremely difficult job, but I really felt that it was the only method of getting over my difficulty. I decided to try a new method for preparing the substance. The new method was successful and now it is possible to get green leaf Tannin in reasonable quantities in a few days, which formerly would have taken months. It has opened out a completely new vista of chemical investigatory work which has been hindered entirely by the lack of any suitable method for preparing the substance. Tannin is after all the fundamental substance in Tea and it is this substance which changes during manufacture. I feel that all investigations on Tea Tannin have not so far been done with a sound and intimate knowledge of the substance with which the investigations have been dealing. This new method of preparation of tannin has overcome this difficulty entirely. The results of the investigation seem to indicate that there is a substance in intimate combination with the tannin molecule—a certain fraction which seems to be split off from the tannin as a result of certain re-actions. This particular substance has an obscure identity. We know nothing about it at present, except a few re-actions which it gives. In a work published in Java some years ago, it was found that a certain aromatic alcohol was responsible for a certain amount of aroma in Tea and there seems to be an affinity between this aromatic alcohol and the fraction of the tannin molecule being discussed. We have not investigated this matter sufficiently, but it would be of vital importance to the Tea Manufacturer if such an affinity could definitely be established between this fraction and the aromatic principles of Tea.

We are now working on the tannin principles of made-tea. I am afraid we have started this rather prematurely because we have not exhausted by any means the tannin principles of green leaves. As a result of the investigation of tannin in green leaves, we have been able to come to conclusions with regard to the various processes which take place during manufacture. I have always felt that the present theories of tea manufacture are unsatisfactory and require modification and I feel that now we have got definite evidence to show that these

theories have not been strictly applicable to tea manufacture and that they do require definite modification. I doubt whether tannin as it exists in green leaves is present in made-tea in the same form and in order to get a satisfactory explanation of what has happened to it, it was necessary to find the fundamental tannin principle in made-tea. This 'Made Tea' principle we consider to be a substance which we have termed 'Caffeine Oxytheotannate.' It is responsible for colour and body in 'Made Tea' infusions. The original theory of Deuss that colour is due to the solubility of Phlobaphenes in a Tannin solution is untenable as our endeavours to prepare free tannin from 'Made Tea' have been almost completely unsuccessful. That is as far as these investigations have gone and I do feel that the work is of vital importance and should be proceeded with.

Now, Sir, with your permission, I should like to refer to the proposals made by the Tea Sub-Committee with regard to the future policy of the Tea Station and I shall take one clause of it, namely, "the increase in Staff." Mr. Hilson recommends the re-engagement of the existing staff, and, in addition, the appointment of :

- 1 Mycologist.
- 1 Entomologist and
- 4 subordinate Indian staff.

I should like to support Mr. Hilson because I feel that the work of the Experimental Station is being hampered, which, I think will also be obvious to any one who has read my Annual Report. The matter of finance comes in here and as I have worked out the details as accurately as possible, with your permission I should like to give them, so as to indicate a very good proposition of working the Scientific Department at the rate of eight annas per acre. I have taken the average expenditure for four years, and not for one year as has been taken by the Sub-Committee. I feel this will give rather a better idea of the expenditure required.

Under Establishment Charges, which include salaries, etc., the amount would be Rs. 57,900.

General Charges which include matters such as assessment, etc., approximately Rs. 12,900.

Touring which should include the Advisory Committee or any other Advisory Body, Rs. 5,400.

Head Office Charges might be assumed to be Rs. 2,000.
 Depreciation of Buildings works out to approximately
 Rs. 4,640.

This brings the total up to about Rs. 83,000 per annum.

Taking the Government subsidy at Rs. 15,400 and assuming the land revenue at Rs. 2,000 per annum, the total liability of the Upasi comes to Rs. 65,500.

The actual acreage from which this would be obtained I have worked out approximately as follows:—

An increase in acreage of about 7,500 per annum has taken place over the last five years, and I have taken it at 5,000 for the next four years; hence 130,000 acres would be the average over the four years. A cess of Re. 0-8-1 per acre would bring you Rs. 65,500. In other words if you go back to a cess of eight annas per acre, as was in existence before this year, you would have sufficient to finance completely an efficient scientific staff.

The next question naturally arises as to how the extra staff would be employed. There are three problems to be solved which are really very serious in South India.

The first is *Helopeltis*. It seems that the only direct method of overcoming *Helopeltis* is by biological control. It seems to me that this is a very useful direction for work in South India. In the Wynaad there is *Helopeltis*—there is no doubt about that—but it does not become a Pest. Climatic conditions might explain this to a certain extent, but I feel there is some other more active agency and it might be of biological significance.

The second is the Eelworm. This Pest has become extremely important during the last few years and I feel this matter requires immediate and thorough investigation.

The third is *Corticium* or what is known as Pink disease which is connected in some way or other with the attacks of *Helopeltis* and it requires the co-operation of an Entomologist and a Mycologist to solve this problem. The Mycologist would further be of extreme importance in working out certain manufacturing problems.

Well, Gentlemen, I will not take up any more of your time, but I should like to express my deep sense of appreciation of the work of Mr. Jones at the Tea Experimental Station. I should like to express also my

appreciation of Mr. Wright's words. We have done our best. We cannot do more. If we feel we have the co-operation of Planters and if they are prepared to encourage us in our work, I am sure it will go a long way towards the successful working of the Scientific Department. (Applause).

The Chairman.—I thank you for addressing the meeting to which keen attention has been paid by the delegates. (Applause).

Would any Tea delegate or any other member like to ask Dr. Shaw any questions? If not, I should like to know if there is any point which you wish to bring forward under the Tea Scientific Department. We will now go on to the next item on the agenda.

Staff.

The Chairman.—Under this item we have two resolutions to be brought forward by the West Coast Planters' Association, the first of which proposes that the Head Office should be moved back to Coimbatore. Will the West Coast delegate please move his resolution?

Mr. H. J. Walmesley.—My resolution reads as follows: "This Association is of opinion that since the engagement of a Political Secretary the location of the U.P.A.S.I. offices in Madras at an expense of over Rs. 700 a month for Offices and Bungalows alone is unjustified, and considers that a combined office for the Secretary of the U.P.A.S.I. and for the Director of the Labour Department should be opened in Coimbatore as soon as possible."

Mr. Chairman, the main reason which was brought forward for moving the U.P.A.S.I. offices to Madras was the necessity of keeping in close touch with the Government. If we are going to continue to keep a Political Secretary, my Association is of the opinion that he is the man who should deal with the Government, and as long as he resides in Madras, there is no need to incur the expense of keeping the Secretary's office there as well. The rise in the cost of the Head Office during the last few years has been very heavy

indeed. These figures, Mr. Chairman, may not be absolutely accurate because we have had to get them out of the Book of Proceedings. As far as we can see in 1924-25 the cost of the Head Office was Rs. 35,000. This year if you add the charges which have been incurred when transferred to the "Planters' Chronicle," together with the Head Office charges which have been transferred to the Scientific Department, you will find that it comes to Rs. 61,580. That is, since 1924 the Head Office expenditure has doubled. If what you spend on your Political Secretary is an advantage, then we think that we should naturally try to reduce the cost of the Head Office.

As far as the cost of the bungalows go, I understand that the Secretary's bungalow and office in Madras cost Rs. 700 and, I believe, the Head Office bungalow and the Labour Department bungalow at Ootacamund cost another Rs. 300, making a total of Rs. 1,000 a month.

At Coimbatore there is a new bungalow, built by the Labour Department at a cost of Rs. 32,000. There are two other bungalows, I am informed, which are available on a rent of something like Rs. 150 each per mensem. Then there are the Assistants in the Labour Department to provide for, but we think it would not be a very great hardship if the Assistants could live somewhere else, say, at the Club. So I think you have got all the necessary accommodation there at a cost of, say, Rs. 400 a month under that item alone.

I understand that the idea of combining the office of the Chamber of Commerce and our office in Madras effects a saving for both parties, so that if we can combine our Head Office with the Labour Office, we will effect a saving in both our Departments.

When we gave notice of this resolution, we did not specify any time limit—we merely said that we considered that the combined office should be opened in Coimbatore as soon as possible. We realize that it is not possible to do it immediately and there are questions which may arise—for instance in connection with the Political Department.

We do hope that you will support this resolution. It will mean that the Executive Committee will take the matter up, will go into it thoroughly and see if they cannot make this saving in expenditure without impairing efficiency in any way at all.

The Chairman.—Mr. Gillespie, do you wish to speak? I should like to hear the members' views on this resolution.

Lt.-Col. C. H. Brock, could you give us information as to the rents of bungalows and offices in Coimbatore?

Lt.-Col. C. H. Brock.—Mr. Chairman, at the present time, of course, we have got our own building and office of the Labour Department. One word about that first. I see that Mr. Walmsley suggests that the Superintendent of the Labour Department may live at the Club. I would like to know what he is going to do with his wife. He is a married man. Married quarters in the Club are very wretched. They are not a fit place to live in.

As regards other bungalows, I really do not know of any good bungalow available. The rent of the bungalow that I occupied was Rs. 173-12-0 a month, and it was owing to an increase of rent that I left it. I occupied that bungalow and I had my office in that bungalow, but I had to give that up. It was very inconvenient. The only other suitable bungalow is that in which Mr. Waddington used to live some time ago. The rent of it was Rs. 175 then. I do not know what it is now. There are no other suitable bungalows, that I know of, in Coimbatore, that are vacant now, except some very small Indian bungalows which are not suitable for the European Staff of this Association. You would find the question of accommodation a difficulty and I really do not know which of these bungalows would be really convenient to convert into a combined office. The Labour Department Office is quite a small place and there is no room for anything more to be put in there.

Under your proposal it would mean one bungalow for myself, for my Superintendent there is a married man. He cannot live in the Club. One bungalow for the combined office. A third bungalow for Mr. Waddington and a fourth bungalow for the Assistant Secretary. That means you

must have four bungalows. I do know of two bungalows, but I do not know where we are going to get four bungalows from. That is the position there.

The Chairman.—I would like to hear the views of members on this question. You have heard what Mr. Walmsley has said and you have also heard what Colonel Brock has said.

Mr. R. Fowke.—Mr. Chairman and Gentlemen, I rise to oppose the resolution. This question was gone into by the Executive Committee a short time ago and we got Mr. Waddington to go into the question as to what the saving would be if we could effect a transfer from Madras. From the figures we received, we find that the saving might represent a matter of Rs. 1,800 per annum. The disadvantages are much more considerable, apart from the fact that we would lose Prestige. We also have to consider that Mr. James will be going Home, possibly this year, so that we would lose all touch with the Government during his absence. I would ask you, Gentlemen, to consider very carefully whether it is worth while to go back to the old arrangement. After all, we have installed ourselves and are known very well in Madras and I do not think it is advisable to do so merely for the sake of a paltry sum of about Rs. 2,000 or so per annum.

IN COMMITTEE.

Mr. H. J. Walmsley.—Mr. Chairman, I admit there is a great deal of force in what Mr. Fowke has just said, and if times were better I might be inclined to agree with him. But we are trying to cut down our expenditure at the present time. I am afraid I cannot accept that figure of Rs. 1,800. I think in the travelling expenses of the Executive Committee alone it would make a saving of very nearly that amount.

With regard to Colonel Brock's remarks, I consider if the office went to Coimbatore, you would not be in need of an Assistant Secretary. There would not be any need for a fourth bungalow. The three bungalows that are available are just what we require.

The Chairman.—Has any other member anything to say on this question? We are still in Committee.

Mr. C. R. T. Congreve.—Mr. Chairman and Gentlemen, it was through my activities, originally, that we moved from Coimbatore to Madras. In my opinion it would be a retrograde step, now, to go back to Coimbatore. Whilst I entirely agree with the mover of the resolution, the economy that is suggested would ultimately prove far more expensive than what you would take it to be at the moment. In Madras the Upasi has steadily grown to be a very large Association in South India. Before we were not known at all, but now the Planters' Association has been recognized. The results of our activities in Madras, at the present time, are that we are consulted by the Madras Government upon every piece of legislation which they bring up. We are consulted by the Indian members of the Legislative Council in the same way. We are looked upon as an Association of importance and we are able to hold our own on every occasion. If we now go back to Coimbatore, we shall lose touch entirely with the Government and the close co-operation between our Planting Member and our Head Office will entirely disappear. It is extremely easy to stand up and say "we shall do this and we shall do that." But as Mr. Fowke told you, our Secretary, at the request of the Executive Committee, to the best of his ability, went thoroughly into the matter and showed the Executive Committee that the maximum amount of saving would not be more than Rs. 2,000. Only a short time ago when there was a proposal to build a bungalow for the Labour Department in Coimbatore, I protested that it was completely unnecessary. I was told that there were bungalows there and that it would be a waste of our money. I made this protest at the Anamalais Meeting and the Committee of the Anamalais Association went very carefully into the question of bungalows generally and they refuted my argument. If, Gentlemen, a few years ago, it was found necessary to build a new bungalow at Coimbatore for one man, surely it would be necessary to build more bungalows if the Head Office were to be transferred to Coimbatore.

I would ask you all to join me in voting against this resolution as I feel sure that money can be saved in other

directions with less harm to the name and prestige of the United Planters' Association of Southern India. (Loud Applause).

Mr. H. J. Walmsley.—Mr. Chairman, may I just say a word or two? I would agree with all that Mr. Congreve has said if we had not engaged a Political Secretary. In our opinion the chief work of a Political Secretary is that he should do all the work with regard to Government. That is what, I understood, he was engaged for. We consider that with the appointment of a Political Secretary to represent us with Government, the position of Secretary becomes a lesser one and the location of his office is of minor importance.

Another point that was raised was with regard to the Upasi losing touch with the Government. I would like to point out that the Government of Madras is only six months in Madras and the rest of the time it is at Ootacamund.

The Chairman.—Has any other member anything to say on this question?

Mr. A. J. Wright.—I do not wish to say anything more on this subject, but I only wish to associate myself with what Mr. Fowke and Mr. Congreve said on behalf of their Associations. By going to Coimbatore there might be savings, but that would be nothing as compared with the loss of the prestige of the Upasi. (Applause).

The Chairman.—Has any other delegate any remarks to make?

Mr. R. Fowke.—Might I just ask a question? Is it a fact that the Government are in Ootacamund six months in the year? Might I ask Mr. James if it is so?

Mr. F. E. James.—Well, the stay of the Madras Government in Ootacamund varies. This year, for example, they have been longer at Ootacamund than they have been previously. They go up in April and come down in August and then go up in September and come back in October. But ordinarily speaking they go up in April and come down in August.

Mr. A. E. J. Nicolls.—Mr. Chairman, our Association has instructed us to oppose this resolution, but I should like to say that we are entirely in sympathy with the object of the resolution, which is to cut down expenditure. Would not the West Coast be satisfied, if they can get an assurance that considerable reduction in expenditure would take place by other means, and withdraw their resolution? .

Mr. H. J. Walmesley.—Mr. Chairman, the difficulty is this. If we have any definite indication of the lines on which economies could be effected, I should like to withdraw my resolution in favour of them. But I would not be justified in withdrawing it on my own responsibility without having some very good reason to do so. I am sorry I have not heard one concrete proposal with regard to other economies.

Lt.-Col. C. H. Brock.—There is one point which I should like to mention. If my office is transferred to Coimbatore and even if Mr. Waddington lets me share his office free of rent (which he would not) I would have to raise my Budget by about Rs. 1,000.

The Chairman.—Will you give details?

Lt.-Col. C. H. Brock.—When I was in Coimbatore, I had two clerks. When I went to Ootacamund, I could work for two more hours than what I could do at Coimbatore. I then got rid of one clerk to save money. At Coimbatore I was frequently behind hand with my work. If we go back to Coimbatore, the rent will be Rs. 45 per month more than what I am paying in Ooty, and besides I shall have to pay a share for Mr. Waddington's office. So far as my views are concerned, I think you will spend a good deal more by going back to Coimbatore.

The Chairman.—Well, Gentlemen, I do not know, but it rather looks to me that if any move is to be made at all, it is better to make the move to Ootacamund and not to Coimbatore. Mr. Congreve, do not you think that the Upasi would lose prestige by moving to Ootacamund?

Mr. C. R. T. Congreve.—My opinion is that the U.P.A.S.I. Offices should remain in Madras. If there were

large Tea markets in Cochin, then I would have suggested Cochin. (Applause).

Captain E. H. A. Travers-Drapes.—May I ask what will be the difference in charges between Madras and Coimbatore?

The Secretary.—I cannot possibly say what the difference would be. There is no doubt that there would be a considerable increase in the cost of printing in Coimbatore and it would be a large item if you take the "Chronicle" there. We cannot publish the "Planters' Chronicle" in Madras and edit it in Coimbatore. I imagine that the increase in printing will practically cover your Rs. 1,800 which you would save in rent.

Captain E. H. A. Travers-Drapes.—As regards savings to be effected, might I suggest that there is one way out of the difficulty? I think we all received a copy of Mr. Mayne's report before. Now we have received another copy here. Then there comes the Executive Committee's Annual Report. We received a copy of this before and now we have received another printed copy. Could not something be done to reduce that by half?

The Secretary.—If you print one hundred copies, the printing charges are infinitesimally greater; if you print two hundred copies, the difference is only in the cost of the paper.

Mr. C. L. Greig.—Mr. Chairman, we have heard Mr. Brock's statement with regard to Coimbatore. Might I suggest we have Mr. Waddington's figures of what the cost of moving his office would be and the cost of maintenance at Coimbatore?

The Secretary.—Moving is a non-recurring expenditure. It will cost about Rs. 1,500 to move from Madras to Coimbatore or a little more. As regards maintenance, of course, there would be a saving of rent, but with that exception, I do not think it will cost any less to maintain the office in Coimbatore than in Madras.

The Chairman.—Has anyone anything to say about this matter?

OPEN MEETING.

Mr. H. J. Walmesley.—Mr. Chairman, as usual I am trying to compromise as far as I can and if you will allow me to bring up this further resolution, I should like to withdraw my last resolution:—

“This Association proposes that the Executive Committee goes further into the question of the removal of the Head Office of the Association to Coimbatore and the reduction of staff it will entail and report fully to District Associations as early as convenient.”

The Chairman.—Mr. Gillespie, have you any objection to the original resolution being withdrawn?

Mr. W. Gillespie.—I am quite agreeable to the original resolution being withdrawn and I would like to second the resolution which has just been moved.

The Chairman.—I take it that no member has any objection to the resolution being withdrawn. Mr. Congreve, have you any objection to its being withdrawn?

Mr. C. R. T. Congreve.—No Sir.

The resolution was, by leave, withdrawn.

The Chairman.—Gentlemen, the resolution now before the meeting is:—

“This Association proposes that the Executive Committee goes further into the question of the removal of the Head Office of the Association to Coimbatore and the reduction of staff it will entail and report fully to District Associations as early as convenient.”

Has any member anything to say on this resolution?

Mr. C. L. Greig.—May we have the Secretary's report to the Executive Committee on this subject?

The Secretary.—Mr. Chairman and Gentlemen, the report I made to the Executive Committee is as follows:—

SUGGESTED TRANSFER OF OFFICE TO COIMBATORE.

At the last meeting of the Executive Committee, I was instructed to go carefully into the advantages and disadvantages entailed if the proposal, made at a meeting of Planters

on the previous day, that the Head Office be moved back to Coimbatore, was carried out.

I have given careful consideration to the matter but find very little to write in favour of the proposal.

Pro. Rents in Madras are,—Office Rs. 250; Secretary's Bungalow Rs. 300; Assistant's Bungalow allowance Rs. 150 per mensem; Total Rs. 8,400 per annum.

Rents in Coimbatore might be Office Rs. 200; Secretary's Bungalow Rs. 200; Assistant's Bungalow Rs. 150 per mensem Total Rs. 6,600 per annum, a possible saving of Rs. 1,800.

Con. The proposal involves obtaining bungalows in Coimbatore for a joint Office and Bungalows for Col. Brock, my Assistant and self. I do not believe it possible to find four bungalows in Coimbatore, we have given up three bungalows, the Association was occupying there, and they all have been let to other parties who are unlikely to give up any of them and, as far as I know, there are no European Bungalows to let in the town, and certainly not four.

The change would mean higher rents than at present paid by Col. Brock, a certain excess of something per annum, although I do not know how much.

Printing which is not an inconsiderable item, taking the Association as a whole, is more expensive and much more roughly done in Coimbatore than Madras, and it is not practicable, if the office is in Coimbatore, to have most of the printing still done in Madras. It would be quite impossible to edit the "Chronicle" at Coimbatore and print it at Madras. There would be a considerable excess under this head. Our total bill for printing last year was Rs. 13,304.

The cost of removal from Coimbatore to Madras in 1924 was Rs. 1,321 and from Madras to

Coimbatore would exceed that owing to additional furniture and records to be moved, say, Rs. 1,500.

Neuter. Less electric current would be necessary, than at Madras owing to the cooler climate of Coimbatore, but what would be used would cost more and telephones are more expensive. I cannot see that any saving would be effected.

That concludes all I can think of as regards financial advantages or disadvantages.

* * * *

Pro. Coimbatore would bring me into closer touch with planting and planters.

Con. At Coimbatore I should lose close touch with the Planting Member and direct touch with Government, Business Firms and the Railways. Mr. James is proceeding Home, either this year or next, and we should be as far from Government as we were when the office was before at Coimbatore.

The Association as such would suffer great loss of prestige with business concerns of the Presidency and with Government.

1st August 1930.

H. WADDINGTON,

Secretary.

The Chairman.—Has any other member anything to say on the subject? If not, I will put the resolution to the meeting. Mr. Walmsley, may I substitute the word “resolves” for the word “proposes?”

Mr. H. J. Walmsley.—Certainly, Sir. That is a mistake in drafting.

The Chairman.—Proposed by Mr. H. J. Walmsley and seconded by Mr. W. Gillespie:—

“This Association resolves that the Executive Committee goes further into the question of the removal

of the Head Office of the Association to Coimbatore and the reduction of staff it will entail and report fully to District Associations as early as convenient."

Those in favour? Those against?

The resolution is carried.

The Chairman.—Well, Gentlemen, we will now take up the second resolution brought up by the West Coast Planters' Association.

Mr. H. J. Walmesley.—I move the following resolution :

"This Association considers the appointment of an Assistant Secretary is only necessitated by the part employment of the Secretary on work not connected with the U. P. A. S. I. and in view of the original conditions of his employment and the salary now paid, is of opinion that the Secretary in future should devote the whole of his time to U.P.A.S.I. affairs."

Mr. Chairman, before I say anything on the subject, I would like to make it perfectly clear that we have brought forward this resolution purely with a view to economy and for no other matter. Many of us have had to suffer very heavy financial losses, and really our position is such that we do not think we can continue to pay for the Secretary, as well as the Assistant Secretary. I do not mean any reflection on anybody. I am sorry I have to refer to the Secretary. The Secretary's salary was Rs. 1,400 a month. Two years after that it was raised to Rs. 1,650 and I understand it has been raised now to Rs. 1,900 in about four years' time. The Secretary's salary is now Rs. 1,900 and in addition we have the Assistant Secretary's salary. If Mr. Waddington can kindly give us the whole of his time, we should not need an Assistant Secretary. I may say again that this resolution has been brought forward purely as a matter of economy and nothing else.

Mr. Chairman, with your permission, I should like to withdraw this resolution if this matter can be considered at the same time as my last resolution which has just been passed and which covers the whole ground. (Applause).

The Chairman.—I would like to ask the permission of the meeting to agree to Mr. Walmesley's suggestion to withdraw this resolution.

Those who are in favour of it? Those against?

The resolution was, by leave, withdrawn.

Increase in tea sales.

The Chairman.—Gentlemen, as Mr. Potter, the Indian Tea Cess Committee's representative, is present, I propose to take up item No. 28 "Increase in tea sales." I think the Central Travancore Association has a resolution on the subject.

Mr. J. H. Cantlay.—Mr. Chairman, on behalf of my Association, I propose to move the following resolution:—

"That the Indian Tea Cess Committee be requested to take every possible step to increase the sale of tea in India if necessary by the formation of a separate selling Agency."

Mr. R. N. W. Jodrell.—I second it.

Mr. J. H. Cantlay.—As you know, the most pressing need of the tea industry to-day is the opening up of new markets or the expansion of existing ones, if the menace of overproduction is to be met in a fighting spirit.

Restriction can only be a temporary, though very useful, remedy. The permanent cure is what we are now urging, and it seems to us that the most promising market must lie at our own doors, in India itself. The results of the advertisement campaign in U.S.A. do not promise any appreciable results for some years at least. Russia is a broken reed, as far as one can judge; but in India (we have it on the authority of the I.T.C.C. Commissioner) the possibilities are enormous; and it is gratifying to know that Mr. Harpur is now at Home and will interview the proprietary interests on this question.

In the report of the I.T.C.C. you will see that the question was very fully discussed in Calcutta at the Annual General Meeting. Mr. Harpur stated that the reason the sale of tea in India was not increasing was (he thought) due

to the fact that tea was not reaching the consumer at a low enough price and, in this connection, I would now like to quote part of the I.T.C.C. report:—

“Mr. Harpur said:—I have on many occasions referred to the enormous possibilities of expanding the trade in India by getting supplies of common tea to the consumer at a more moderate price than now prevailing; I suggested this as far back as four years ago, and recently there have been many similar suggestions from different sources of how an expansion of the trade may be expected if the industry arranged for large quantities of cheap sweet tea to be available at an attractive price. My experience in India convinces me that such expectations are well founded, but the quantity should be large—not less than 10 million lbs., each of leaf and dust. If anything in this direction is done, the most important thing is to insure that the consumer gets the full benefit. I would remind you of what I remarked with regard to prices in my address at the half-yearly meeting held on March 13, 1924, viz:—

“The Consumption of tea in India: It is certainly true that at the present time the public only get for a pice slightly more than half the quantity of leaf tea they used to get a few years ago. I suppose “a pice worth” might be said to be standard of quantity with the poor, and if their purchasing power is a pice it is logical to conclude that when prices are high the consumption per capita must be correspondingly low, but it is equally true to conclude that if consumption per capita falls when prices go up, the quantity consumed will increase when prices come down.

“In view of the very low prices prevailing during the past year, this suggestion may seem rather extraordinary; it may surprise you to learn that although common tea at the auction has been selling at below the producer's cost price, very little of this tea reaches the public at less than double the auction price. This may seem to be a sweeping statement; before making it I had packets of both leaf and dust tea purchased in the bazaar, representing teas whose combined sales must be in the neighbourhood of 15 to 20 million lbs. I sent samples of those in plain tins for valuation, and the results are as follows:—The wholesale prices of the leaf teas average 166 per cent, over the auction valuation and on the dust teas the wholesale price works out at 102 per cent, above the auction valuation.

“In the circumstances it will be easily understood why consumption has not responded proportionately to the fall in prices at the auctions. To further illustrate my conviction regarding the possibilities in this respect, I have put on the table samples of very rubbishy stuff and the prices at which the same is sold in mofussil towns—the prices are about double the Calcutta auction prices for good sweet common tea.

“If the industry decides to set aside several millions of pounds of sweet common leaf tea and dust tea at low prices to be disposed of in India at fixed prices to the consumer, I see no reason why it

should not be possible to have this disposal of through the usual trade channels but it should be essential to ensure that the consumer gets the full benefit of the low rate at which it would be supplied. It would be an inducement to producers to offer sufficient quantities if such quantities were not included in the restricted production programme if such is permissible. As regards the marketing of it, my suggestions are that efforts should be made to get as many as possible of the distributors to handle it and that they might be allowed to put it up in paper packets with distributors' name and the retail price: the principal distributors have little interest in the sale of loose tea as there is no good-will value to such business, that is why I suggest packets, so as to encourage their co-operation. All the details regarding the price could easily be worked out in consultation with the distributors, who for the sake of the prospective additional trade and good-will could very probably be induced to handle such quantities at a very close margin of profit because whatever expansion in trade resulted from this scheme would ultimately be of material benefit to the distributing trade in India. Such a scheme need not materially disturb our present operations in India as such would be merely supplementary to the work now being done, and the work proposed for Burma or elsewhere in India.

"As regards the sale of tea in the tea districts, some very valuable suggestions have been put forward regarding the sale of tea by the tea gardens at all the adjacent huts and, I trust, to all dealers in the adjacent towns also; I sincerely hope that the suggestions will receive support and sanction of the tea producers as it would undoubtedly help to increase consumption.

"The most interesting and essential item to deal with is what has been the result of work. You are already in possession of the statements I have submitted showing that the consumption of tea during the year ending March 31 last amounted to 56½ million lbs., the figures submitted by me have been confirmed by the Director-General of Commercial Intelligence and Statistics, India. Now as regards the current year. I find from the statistics given by the principal railways in Calcutta that the quantity of tea distributed through India up to the end of January—these being the latest figures I have—exceed those of the previous year by more than 4 million lbs., so that I am hopeful when the final exports and other figures are available we shall be near the 60 million mark.

"The Committee considered the proposal of the Executive Committee that a sum of Rs. 6¼ lakhs should be expended during the year 1930-31 on advertising Indian tea in India. The discussion on the subject was initiated by Mr. Chalk who suggested that a much larger sum could with advantage be devoted to the development of the Indian market. He considered that the expenditure in Germany was not a profitable investment, and that the best results which could in any circumstances be expected on expenditure there could not compare with the possible advantages to be obtained by judicious expenditure at the tea cess doors in India.

"The population of 300 million people put at the modest estimate of 1 lb. per head per annum could, if this market were developed, absorb the whole of the Indian crop. In his view the money which it was proposed to allot for expenditure in Germany should be entirely devoted to the extension of work in India.

"The Chairman explained in this connection that the campaign in Germany was more or less under the direct encouragement of the London Committee and that the cess was to some extent committed to a three-year programme, the year 1930-31 being the last of the three years. Admittedly the reports of the work were not altogether re-assuring, but the Committee were morally bound to continue the allotments for the ensuing year.

"Mr. Kilburn was disposed to think that the £15,000 suggested for the expenditure in the United Kingdom might be transferred in India. He explained that in Assam there was a very strong feeling that the demand for tea existed, and that an endeavour should be made to meet it. It was thought that a scheme should be put forward, with the help of the Cess to sell tea in packet; and he understood that the possibilities of such a scheme had already been investigated and were most encouraging.

"The meeting discussed generally the idea of endeavouring to promote measures for extending the sale of tea in India in packets, and the general feeling was that there was every prospect of success in developing work on these lines. Mr. Ghose was disposed to go further and recommend the expediency of putting up tea in small tins to be sold at from two annas upwards, in order to ensure teas keeping in good condition over a period of several days. On the other hand, a suggestion was that tea in packets might be distributed packed in tins such as kerosene tins which would be useful for other purposes and thus form suitable advertising matter.

"The meeting discussed in general the suggestion referred to above that the Cess Committee might consider the question of a suitable selling organization.

"It was pointed out that such an organization would be extremely expensive, and that it would be better to use the existing machinery in the organization of the distributing trade for the purpose of distributing tea widely. Other objections to the building up of an organization by the Cess Committee were these, namely, that such an organization could not be built up in a short time, that it would be in competition with the existing distributors, and that if at some future time the Cess Committee discontinued the allotment of funds, the organisation would cease to function and there would be no machinery available to carry on its work. The Committee considered that a preferable method of approaching the subject would be to authorise the Chairman and the Vice-Chairman, with Mr. Harpur to discuss the question with the firms of distributors, and the Committee decided to accept this suggestion and gave the Chairman and the Vice-Chairman the requisite authority. It was arranged that when the question was discussed it should be suggested to the

distributors that, as indicated by Mr. Harpur in his remarks, that teas were being sold at unreasonably high prices, and that they should also be requested to put forward any suggestions which might occur to them for the improvement of the sale of tea in India."

I think I have said enough to convince you that there are very great possibilities in the Indian Tea Market if a sound scheme can be worked out. A separate selling agency may not be necessary, of course, but it is difficult to see how it can be avoided.

The Chairman.—Are you speaking, Mr. Jodrell?

Mr. R. N. W. Jodrell.—I have nothing to add to what Mr. Cantlay has said.

Mr. H. L. Potter.—I am afraid I am not in a position to give you any more information than what you have already heard. That is all I know at present. I am expecting Mr. Harpur's return from England, but I do not know precisely what his ideas are, whether he is going to modify our present arrangements.

The Chairman.—Mr. Potter, could you give us your own views with regard to increasing the sale of Tea in South India?

Mr. H. L. Potter.—Sir, I do not think I can do that. I have not come here prepared with any details.

IN COMMITTEE.

The Chairman.—We will go into Committee.

The Secretary.—I have since received the half-yearly report of the Indian Tea Cess Committee Meeting of the 25th of July, but I have not brought it with me. I can go a little bit farther and tell you that the Distributors, I understand, would not agree to any practical scheme.

One question I should like to ask Mr. Cantlay. Would he support a scheme for selling good sound Tea at half cost of production?

Mr. J. H. Cantlay.—Might I ask the Secretary whether it is proposed to sell the Tea at half rate?

The Secretary.—You may remember that in Messrs. Brooke Bond & Co.'s report on Tea for 1929, they suggested

that good sound Tea be sold retail, at half the cost of production. The Distributors would not agree to any scheme put up and the matter has now been referred to the London Committee of the Indian Tea Cess Association as to whether they will support the idea that the Indian Tea Cess Committee should also become the Distributors of Tea.

The Chairman.—The Secretary has gone very fully into this matter and I would ask him to give us his own views on the subject.

The Secretary.—I am sorry. We have all tried to work out some scheme for distributing and increasing the sales of coffee and for increasing the sales of tea, but I have not any definite views at all on the matter. The Chairman reminds me that I have said that the only possible means by which I think such increased sales can be effected is by setting up a separate selling Agency. There is a most successful example of that in Southern India, but whether it would be possible for other Companies to do the same by forming a combination, is the question. It seems to me to be the only possible solution.

OPEN MEETING.

The Chairman.—Has any other delegate anything to say on this subject? If not, I will put the resolution to the meeting.

Proposed by Mr. J. H. Cantlay and Seconded by Mr. R. N. W. Jodrell:—

"That the India Tea Cess Committee be requested to take every possible step to increase the sale of Tea in India if necessary by the formation of a separate selling Agency."

Those in favour? Those against?

The resolution is carried.

Imitation and Adulterated Teas.

The Chairman.—We will now take up the next item—No. 29—Imitation and Adulterated Teas. The latest information on this question, which really hinges upon the

Madras Prevention of Adulteration Act, is given in the report of the Executive Committee. Mr. James will be able to tell us if the necessary powers have now been delegated to the Inspectors who have been appointed?

The Secretary.—Mr. Chairman, before we proceed further, I would like to say that Mr. Potter has just handed me a telegram which he has received from the headquarters of the Indian Tea Cess Committee asking him to inform us that had Tea work has commenced and is in progress at Ootacamund, Coimbatore, Trichinopoly and Calicut, and that their Assistants arrived in Madras on the 18th August, the day before yesterday, to commence operations, but other information states the Health Authorities in Madras are not able to start till September.

Mr. F. E. James.—As far as I know, the position is that the Municipality of Madras has approached the Government of Madras and have asked them to delegate to them the necessary powers under the Act. Those powers have not yet been delegated by the Government, and until they are so delegated, the Madras Corporation will not be making the necessary appointments with regard to the inspecting staff. That is why I think September is the month mentioned on the assumption that August will be the month in which those powers will be given to the Corporation. But I have not had any information for the last fortnight.

The Chairman.—Mr. Cantlay, I think you have a resolution to bring forward.

Mr. J. H. Cantlay.—Mr. Chairman, with your permission, on behalf of my Association, I move the following resolution:—

"That the U. P. A. S. I. should approach the Madras Government with a view to its expediting the delegation of powers to Inspectors under the Food Adulteration Act as far as Tea is concerned, as until this is done no steps can be taken to check the trade in adulterated and imitation teas."

I understand that the position as regards the Act now is that the Madras Corporation have appointed four Inspectors, to enforce the provisions, and on the 23rd May, Government issued a notification containing draft rules regarding

the necessary delegation of powers to Inspectors, without which the latter are unable to act. Government, however, cannot pass final orders until at least 6 weeks after the issue of the notification regarding rules, but it is expected that they will shortly do so and that the Act will then come into force. At present it is actually not in force anywhere, 12 years after it was passed.

The latest information from the local tea markets (Cochin and Calicut) is that the sale of adulterated tea is going on as actively as ever, in fact it seems to be actually on the increase; and the price of good Dust Tea on these markets has been seriously affected.

One firm has sent in a sample of what is known as "Virudupatty" tea, which I understand is made from black gram husk and contains no real tea at all and is sold at 10 pies per lb. at Calicut. From another authentic source, I am informed that the small town of Athirampuzha, situated about five miles from Kottayam, is said to be the manufacturing centre of adulterated teas and the so-called factories there manufacture and sell more dust teas than is manufactured in a dozen or more of the well established Tea Estates in Peermade.

There is no doubt that these so-called teas, manufactured in Virudupatty, Athirampuzha and elsewhere, are extensively bought by the dealers in Estate dust, who mix it with the genuine article and repack it in chests with well-known Estate Marks on them, the result being that it has now become almost impossible to do straightforward business on the Coast in pure dust tea.

It is obviously necessary that the Act to prevent this adulteration should be brought into force at a very early date.

The Chairman.—Have you a seconder?

Mr. T. Davenport.—I have much pleasure in seconding this resolution.

The Chairman.—Has any delegate anything to say on this subject?

IN COMMITTEE.

Mr. P. F. C. Jourdain.—Mr. Chairman, I confirm what Mr. Cantlay has just said, but does the resolution cover the whole point by stating that the U.P.A.S.I. should approach the Madras Government? My impression is that a great deal of this Tea, to which Mr. Cantlay refers, is being made somewhere in the Cochin District and, I think, we should also approach the Governments of Travancore and Cochin in addition to the Madras Government.

Mr. J. H. Cantlay.—I have already approached the Travancore Government.

The Chairman.—Mr. Jourdain, the matter was referred to the Travancore Government through the Travancore Combined Planters' Association. It has been before them for three years and, I think, I am right in saying that the Dewan lately introduced a Food Adulteration Act. That is where the matter stands now.

Mr. J. H. Cantlay.—A Sub-Committee has been formed to enquire into the matter and their deliberations will be placed before the Government at an early date.

The Chairman.—Who formed the Sub-Committee Mr. Cantlay?

Mr. J. H. Cantlay.—The Sub-Committee was formed on the instructions of the Travancore Government.

The Secretary.—Our interests are well represented on that Committee by Mr. Lampard, who is working very hard and I may say that I sent him down my files to assist him. I also sent him all the samples of Imitation Teas, which I had in my office. Since the Travancore Combined Association has taken up the matter, we left Travancore to them, and should not interfere until they ask us to help them in the matter.

The Chairman.—Mr. Jourdain, how could we approach the Cochin Government? I think it is true that Imitation Tea is being manufactured in Cochin.

Mr. P. F. C. Jourdain.—But my point is this. I knew the Travancore Association had already taken up the matter with the Travancore Government, but I thought it would be just as well to press it home to all the Governments at the same time.

OPEN MEETING.

The Chairman.—Yes, I quite agree. Has any other member anything to say on this subject? If not, I will put the resolution to the meeting.

Proposed by Mr. J. H. Cantlay and seconded by Mr. T. Davenport:—

"That the U.P.A.S.I. should approach the Madras Government with a view to its expediting the delegation of powers to Inspectors under the Food Adulteration Act as far as Tea is concerned, as until this is done no steps can be taken to check the trade in adulterated and imitation teas."

Those in favour of it? Those against?

The resolution is carried.

Accounts.

The Chairman.—Is there any other point that any delegate wishes to bring up under this item of adulterated teas? If not, we will go back to item No. 8—Accounts. The South Travancore Association have got a resolution on this subject.

Mr. W. Gillespie.—My Association had asked me to put forward the following resolution:—

"That all departmental accounts be kept separate."

Mr. Chairman, with your permission, I should like to withdraw this resolution as, I understand, it is fully covered by a later resolution which is to be moved by the West Coast Association.

The Chairman.—Has Mr. Gillespie the permission of the meeting to withdraw his resolution?

The resolution was, by leave, withdrawn.

The Chairman.—We now go on to item No. 10—Subscriptions. The Mysore Planters have got a resolution on this subject. Would you bring up this resolution this afternoon, Mr. Fowke?

Mr. E. W. Fowke.—Yes.

The Chairman.—The resolution you are interested in Mr. Walmesley, comes under the heading "Disposal of credit balances."

Mr. H. J. Walmesley.—I want to ask some questions about the Balance Sheet. If you will take the item of Provident Funds, you will notice that the liabilities of this Fund are Rs. 2,000 less than what is shown here. At the present time it is shown to the credit of the Upasi. That Rs. 2,000 is not a credit. Those are the subscriptions to the Fund. The Rs. 2,000 belong to the subscribers and not to the Upasi. Is not that so?

The Chairman.—I will ask the Secretary to reply.

The Secretary.—It is the property of the Upasi. What happened was that more money was invested on the Provident Fund Account, by Rs. 2,000, than ought to have been. We invested the accrued interest by mistake. That money belongs to you and not to the Provident Fund.

Mr. H. J. Walmesley.—Then with regard to the Benevolent Fund. Is not that separate? That should not be in the Upasi Balance Sheet at all. It should appear separately.

The Chairman.—Would you propose a resolution?

Mr. H. J. Walmesley.—I would like to suggest that the Executive Committee should go into the whole question and also put the Provident Fund into the hands of the Trustees. If they consider these two questions, I will withdraw my resolution.

The Secretary.—I would explain Mr. Walmesley that under the amended Provident Fund and Income-tax Act, Trustees are compulsory if a Provident Fund is to be registered. We are now taking our Solicitors' advice, but the Executive Committee has not had time to study yet the point as regards our amending our Rules.

Then with regard to the other point as to how the Benevolent Fund Accounts came into our Balance Sheet, I am afraid I am not quite certain. They have always done so.

Mr. H. J. Walmesley.—It will clarify the Balance Sheet. Then with regard to these motor car allowances, the amount is Rs. 12,855. May I ask how many cars are there for which allowances have been given?

The Secretary.—The details of Rs. 12,855 are as follows:—

Outstanding balances account advances made for motor cars due by

Mr. A. G. A. Dunning	Rs. 3,000
„ F. W. Winterbotham	„ 2,625
„ A McDougall	„ 2,100
„ W. W. Mayne	„ 780
„ F. E. James	„ 2,200
Dr. W. S. Shaw	„ 2,150
	<hr/>
	Rs. 12,855

Subscriptions and Disposal of Credit Balances.

The Chairman.—Has any delegate anything further to bring forward under “Accounts?” If not, we will go on to the next item—“subscriptions and disposal of credit balances.” The South Travancore Planters’ Association have a resolution.

Mr. W. Gillespie.—Mr. Chairman, my Association has asked me to bring up the following resolution:—

“That any surplus over expenditure for the year be adjusted by reducing subscriptions for the 4th quarter of each year.”

I should again like to ask your permission to withdraw this resolution as the West Coast resolution which, will come on later, covers this resolution also.

The Chairman.—Gentlemen, has Mr. Gillespie your permission to withdraw his resolution? Mr. Gillespie, you may withdraw your resolution.

The resolution was, by leave, withdrawn.

The Chairman.—The next resolution is by the Central Travancore Association.

Mr. H. Clarke.—Mr. Chairman, I want your permission to withdraw the following resolution and in its place to move another resolution. The resolution which I wish to withdraw reads as follows:—

“That in view of the present depressed condition of the Tea industry the sum of Rs. 60,000 be taken from the Reserve and Accumulated Funds, so that the cess on the Tea acreage for the year April 1930 to March 1931 may be reduced by a similar amount; and that when the budget for 1931-1932 is being framed, a substantial amount be taken from the Reserve Funds to enable the cess on the Tea areas to be reduced by a corresponding amount.”

The Chairman.—Gentlemen, has Mr. Clarke the permission of the meeting to withdraw his resolution and to substitute another in its place? I take it that the meeting has no objection.

The resolution was, by leave, withdrawn.

Mr. H. Clarke.—I move:—

“It is recommended that when the Budget for 1931-32 is being framed an effort be made to reduce all cesses.”

Mr. H. J. Walmesley.—I second this resolution.

The Chairman.—Will you speak to your resolution Mr. Clarke?

Mr. H. Clarke.—I do not think it is necessary for me to say anything.

The Chairman.—Those in favour of the resolution? Those against?

The resolution is carried.

Mr. H. J. Walmesley.—Mr. Chairman, with your permission, I would like to withdraw the following resolution and substitute two short resolutions in its place:—

“This Association proposes that subscriptions for the current year be reduced to:—

Tea	6 annas
Coffee	4 „
Rubber	3 „
Min. Products	3 „

“The unexpended balance of the Income of the Scientific Departments including that of 1929-1930 be carried forward annually to the following year and that adjustment be made in the amount of cess collected in the second half of each year to bring the income raised to the approximate level of expenditure.”

The Chairman.—The meeting, I take it, gives permission to Mr. Walmesley to do so.

The resolution was, by leave, withdrawn.

Mr. H. J. Walmesley.—The first resolution is:—

“This Association proposes that a remission be made of the balance of the current year's subscription for all products.”

I understand that in all cases two quarters subscriptions have been called up, and this resolution proposes that the next two quarters should not be called up. That actually amounts to a return of fifty per cent. in subscriptions. I understand that under my arrangement we will have sufficient money to pay for the Head Office and the Political Department as they stand now. Should there be an excess expenditure of Rs. 9,000 or Rs. 10,000 over the actual income, then this could be drawn against the accumulated fund, but we hope it will not be necessary to do so.

Mr. R. N. W. Jodrell.—I second it.

Mr. C. L. Greig.—I think the remission is altogether unnecessary.

The Chairman.—Does anyone else support the resolution? Well, Gentlemen, if no gentleman has anything further to say, I will put the resolution to the meeting.

Proposed by Mr. H. J. Walmesley and seconded by Mr. R. N. W. Jodrell:—

"This Association proposes that a remission be made of the balance of the current year's subscription for all products."

Those who are in favour of it? Those against?

The resolution is carried (The Nilgiri Association dissenting).

The Chairman.—There is a resolution by the Munda-kayam Association.

Mr. O. J. Egan-Wyer.—I withdraw my resolution of which I had given notice:—

"That the sum of Rs. 75,000 be withdrawn from the Reserve Fund and utilized in reducing the Subscriptions for the 1930-31 season pro rata to all products."

The Chairman.—I take it that the meeting gives Mr. Egan-Wyer permission to withdraw his resolution.

The resolution was, by leave, withdrawn.

Mr. H. J. Walmesley.—Mr. Chairman, I have a second resolution to move. We have divided our resolution into two halves.

The Chairman.—I am sorry.

Mr. H. J. Walmesley.—The resolution is not readable. I shall re-write the same.

The Chairman.—Well, Gentlemen, while this resolution is being re-written, I would like to make a suggestion, and that is, that, in future, a half-yearly short statement of the U.P.A.S.I. accounts be circulated to the Executive Committee and District Associations.

I think the details can be left to the Secretary, Gentlemen, but the object is, of course, to find out in good time if any surpluses are accruing.

I move formally:—

"That a half-yearly statement of the U. P. A. S. I. accounts be circulated to the Executive Committee and District Associations."

Those in favour? Those against?

The resolution is carried.

The Secretary.—Mr. Chairman, you said: "a short statement of accounts." Do you think an ordinary Income and Expenditure account in the same form as which we print the Budget will do?

The Chairman.—That is what is wanted.

Mr. R. N. W. Jodrell.—What we are asking for is a statement of Income and Expenditure half way through.

The Secretary.—That is easy if in the same form as present Accounts.

The Chairman.—Gentlemen, the resolution proposed by Mr. H. J. Walmesley and seconded by Mr. A. J. Wright is as follows:—

"That the surplus balance of Departments as at the end of last season after crediting scientific cess for the current year with Rs. 27,000 saved, be carried forward in a general fund, and that, from the current year, adjustments be made in the cesses collected in the second half of each year to bring the income raised to the approximate level of expenditure. Any credit or debit balance in the respective departmental accounts at the end of each season in future be carried forward annually in that department's accounts."

Mr. H. J. Walmesley.—The object of moving this resolution is that we consider it is not worth while that there should be surpluses of cesses in these special departments. Any excess or deficit should be all in the Head Office

Accounts. We pay so much money for Science, for instance, and we expect that that money should be spent on Science. If we do not need all provided for, it need not be collected. We made a special note of the surplus of last year's scientific accounts and deal with that specially. The other items of surplus we merged into one fund. Perhaps my seconder will be good enough to speak on the reasons for amalgamating this into one fund.

Mr. A. J. Wright.—Mr. Chairman, the idea underlying this is to stop all possible further misunderstandings. I do not think it is necessary to say more on the point.

The Chairman.—Has any delegate anything more to say on this resolution?

Mr. R. Fowke.—Mr. Chairman, I should like to say one word about this matter. I hope this resolution will be carried. It will, I am certain, relieve any feelings of distrust which may or may not be present in our minds and I am quite certain that we will be called a really United Planters' Association. (Applause.)

The Chairman.—I will now put the resolution to the meeting.

Proposed by Mr. H. J. Walmesley and seconded by Mr. A. J. Wright:—

"That the surplus balance of Departments, as at the end of last season, after crediting scientific cess for the current year with Rs. 27,000 saved, be carried forward in a general fund, and that, from the current year, adjustments be made in the cesses collected in the second half of each year to bring the income raised to the approximate level of expenditure. Any credit or debit balance in the respective departmental accounts at the end of each season in future be carried forward annually in that department's accounts."

Those in favour of it? Those against?

The resolution is carried.

The Chairman.—Well, Gentlemen, I think we have done this morning's work.

Mr. A. J. Wright.—May I have your permission, Mr. Chairman, to propose a further resolution in connection with this matter? I ask for permission because my Association has asked me to propose a resolution which originally formed part of the West Coast resolution.

The Chairman.—Yes.

Mr. A. J. Wright.—I beg to propose:—

“That the Head Office or the General Fund contribute a sum of Rs. 75,000 annually to the revenue of the Labour Department.”

The reason for moving this resolution is that the Labour Department is in a peculiar position with regard to the subsidy and with regard to receiving a certain amount of money annually from the general subscriptions for services rendered. By altering the system of accounts, as has been proposed in the last resolution, it leaves the Labour Department without its annual subsidy. If this resolution is passed, a fixed sum of Rs. 75,000 will be provided, so that the Labour Department will know exactly where they stand as regards their finance and will be able to levy their subscriptions at whatever is required.

The Chairman.—Colonel Brock, have you anything to say with regard to this matter?

Lt.-Col. C. H. Brock.—No, Sir.

The Chairman.—Has any delegate anything to say on this resolution?

Mr. C. L. Greig.—I think the subsidy by the Upasi to the Labour Department should be paid as a fixed sum.

IN COMMITTEE.

The Chairman.—We will go into committee. The Secretary would like to ask Mr. Wright a question?

The Secretary.—Mr. Wright proposed that the Head Office or the General Fund should contribute Rs. 75,000

annually to the Labour Department. Is that from the accumulated fund of the Head Office of just over a lakh of rupees?

Mr. A. J. Wright.—That may be taken from the subscriptions if there is sufficient, but if there is anything short it may be taken from the accumulated fund.

The Secretary.—From the general subscriptions? On the same principle as at present two annas or more per acre goes to the Labour Department?

Mr. A. J. Wright.—That may be decided year by year.

The Secretary.—I am not quite sure what Mr. Wright means. You do not say that if there is any difference it should be subscribed, but you say it should be taken from the Head Office or the General Fund, which I thought had disappeared after Mr. Walmesley's resolution!

Mr. A. J. Wright.—The whole point of the previous resolution is that the accumulated fund will be in one fund.

The Secretary.—If it is not the Head Office Fund, then it is the General Fund.

Mr. A. J. Wright.—Either Head Office or General Fund whatever you may like to call it. We say the Common Fund.

The Secretary.—Then in future, the common fund, I understand, will provide the Labour Department with Rs. 75,000 a year and, in four years there will not be any common fund.

Mr. R. Fowke.—That is not the idea. The resolution passed gave a remission for subscriptions. If those subscriptions had been paid fully, then you would have very nearly the amount that Mr. Wright is now wanting. The resolution which we have just passed gives us the remission for the current year.

The Secretary.—The resolution says annually, Sir.

Mr. R. Fowke.—I am talking about the previous resolution and if next year we keep our subscriptions on the

basis that it has been this year, we should have sufficient money and we would not require to draw on the general fund to that extent. It may be a matter of Rs. 8,000 or Rs. 9,000 because the subscriptions will give you about Rs. 65,000.

The Secretary.—I thought that was the idea, namely, that the balance required to make up the Rs. 75,000 should be found from the General Fund.

Mr. R. Fowke.—It would have to this year.

The Secretary.—This resolution definitely says that Rs. 75,000 from the General Fund is to be paid to the Labour Department annually.

Mr. H. J. Walmesley.—Our subscriptions are paid into the General Fund or whatever you call it. We hope the subscriptions will cover that amount.

The Chairman.—Mr. Wright, if the resolution is put like this, will it meet you?—

“That a sum of Rs. 75,000 which is necessary for the Labour Department be found from the General Fund.”

Mr. A. J. Wright.—The word “annually” should be there. The point is that the General Fund should be responsible each year for providing Rs. 75,000 for the Labour Department. That takes into consideration any subscriptions that may be paid on account of the Labour Department into the General Fund.

The Secretary.—I am sorry to have been so long in grasping the meaning of the term “General Fund.” I quite see now what you call “General Fund.”

OPEN MEETING.

The Chairman.—Mr. Wright, shall I put your resolution to the meeting as you have sent it in, only leaving out the words “Head Office?”

Mr. A. J. Wright.—Yes.

The Chairman.—Proposed by Mr. A. J. Wright and seconded by Mr. H. J. Walmesley:—

“That the General Fund contribute a sum of Rs. 75,000 annually to the revenue of the Labour Department.”

That is the resolution before the meeting. Has any other delegate anything to say on the subject?

Lt.-Col. C. H. Brock.—May I say one word? The annual grant from the Upasi to the Labour Department has hitherto been roughly worked out on the actual acreage basis. Naturally as the acreage goes up, the grant will be more. We have been doing work for the non-subscribers also and have been taking up their cases under the Labour Rules. If the acreage subscribed to the Upasi continues to increase, it seems to me to be rather hard on the Labour Department to fix a sum which does not increase with the acreage. An increase of acreage naturally means an increase of work and increase of expense. If you are going to fix Rs. 75,000, in five years there might be 30,000 acres more, and we should have very much more work to do. It will mean that the whole of the cost of extra work due to any increase will have to be borne by the subscribers instead of by all the members.

Mr. H. J. Walmesley.—May I suggest that we leave this matter as it is for the present? There is little chance of having a large increase of acreage in the next few years. When we do get that increase it can be considered.

Mr. C. L. Greig.—Mr. Chairman, my Association is averse to this resolution being passed.

Mr. R. N. W. Jodrell.—We hope for economy. We may be sure that the Labour Department will be getting, as it has been getting in the past, a subsidy of Rs. 75,000. We do not want these excess balances. The matter can be adjusted by calling up extra subscriptions if we decide that it is necessary.

The Chairman.—I will now put the resolution to the meeting.

Proposed by Mr. A. J. Wright and seconded by Mr. H. J. Walmsley:—

"That the General Fund contribute a sum of Rs. 75,000 annually to the revenue of the Labour Department."

Those in favour? Those against?

The resolution is carried.

St. George's Homes.

The Chairman.—Mr. Congreve, do you wish to speak?

Mr. C. R. T. Congreve.—Yes, Sir.

"MR. CHAIRMAN AND GENTLEMEN,

I crave your indulgence for a few moments in order to make an appeal on behalf of the St. George's Homes at Ketti. I believe I am right in saying that in the past some annoyance has been caused to the planting community in South India through certain injudicious speeches which resulted in a large number of subscriptions being dropped.

The St. George's Homes were started at Kodaikanal in the year 1914 with the following object, *viz.*, to take in and care for children who are:—

1. Orphans and destitute.
2. Destitute but not orphans.
3. Whose parents are destitute or unable to fulfill their parental duties.
4. Who are in undesirable moral or physical environment.
5. Whose parents, though not being entirely destitute, are only able to contribute a small amount to their maintenance and education.

In 1922 the Homes were moved to their present situation at Ketti, between Ooty and Coonoor in the Nilgiris. They consist of two cottages for girls, two for boys, a cottage used partly as a kindergarten and headmaster's house, and a large central school building with a hall and

class rooms. Each cottage is an independent unit, presided over by a House Mother, who is recruited from the British Isles, with an assistant House Mother who is recruited either from the British Isles or from this country. As far as possible, the children live in an atmosphere of home life. No servants are employed in the cottages, and all the work of cooking, washing-up and cleaning is done by the staff and the children. The Homes are administered by a Principal under the guidance of a Board of Management. Up to recently the personnel of this Board was recruited from various parts of South India, with the result that meetings could only be held once or twice a year. This arrangement did not prove satisfactory, and a few years ago it was decided that the Board should consist of members resident in the Nilgiris. As a result meetings are held once a month and the superintendence of the work is far easier and more efficient than it was in the past.

In September 1929 a special Sub-Committee was elected by the Board to consider the whole working of St. George's Homes, chiefly from a financial standpoint. They reported that expenditure on certain items was unduly high and recommended reduction. They were further of the opinion that, owing to there being no servants in the cottages and to the inadequate means for cooking, etc., an undue proportion of the children's time was employed in unprofitable house work. Amongst other reforms they recommended was the building of a central dining hall where the children could be fed better and more cheaply by proper cooks employed for the purpose. They also suggested that the school be reduced in Standard from a High School, which it had only just become to a Middle School, as in their opinion the cost of running a High School was not commensurate with the benefits derived from it.

These recommendations, especially with regard to the communal dining room and the High School, were subjected to considerable criticism and this must be met. Dealing with the High School question first, it was found after examination, that only one child in the whole school was up to High School standard, and that, for this child an additional school mistress on Rs. 100 per mensem was employed.

With reference to the central dining hall, it has been asserted that the whole spirit of home life of which, at present, so strong a point is made, would be lost, as the children would, instead of spending most of their time in the cottages, spend it at the school and in the communal dining hall. This fear is, in the opinion of the Board, groundless, and the enormous advantage of giving the children spare time for games and vocational training far outweighs any slight lessening there might be of home life.

The cost per head per child is at present high, due partly to the expensive method of feeding, partly to the large staff that has to be employed in the cottages to look after the children properly and to attend to the cooking. When the work of feeding the children is centralised, the House Mother will be relieved of work, extra staff will not be required, more space will be available in the cottages, and the *per capita* cost reduced considerably.

As a result of the recommendations of the special Subcommittee, I might mention that in the last 6 months, a saving under ordinary heads of expenditure of about Rs. 6,000 has already been made, a saving which you will agree with me is very considerable. Further reduction will be effected when the Central Dining Room and the Communal Kitchen are completed.

The cost of running these Homes has practically entirely to be found by charity. It is true that Government give an educational grant each year, but this grant goes a very small way towards the cost of running the Homes. Sir Robert Laidlaw, who was always a very great friend of the Homes, on his death left the Ketti and the Kalimpong Homes as his residuary legatees. It was thought at the time that this would mean a very large sum of money indeed. Owing however, to various causes, these hopes have not materialized, and the Homes have only received a sum of about £24,000. The Trustees have laid it down that after paying off the overdraft at the Bank, and constructing the central dining room and kitchen, this bequest should be treated as an endowment fund invested in trust securities, and that only the interest thereof should be available for the current expenses

of the Homes. The interest received from this fund should amount to about Rs. 12,000 each year. The estimated shortage between income and expenditure will be about Rs. 2,000 a month, after allowing for present subscriptions, Government Grants, School fees, and the interest on the legacy. This sum has to be found by other means. These means are private subscriptions.

I think everybody must realize the enormous good which has been done in the past and is being done at present by St. George's Homes, and the splendid work done by the staff needs no comments of mine. I would appeal to you Gentlemen, to consider the needs of St. George's Homes. In these hard times when all plantation products are down to their present very low prices, charity must suffer, but even small sums such as Rs. 10 or Rs. 15 per year are of the utmost value, and I trust that all of you will place this very deserving charity on your list and will ask all those with whom you come in contact to do the same. It is only with your aid and the aid of the general public that St. George's Homes can continue to exist, and I know that you and everybody will agree with me that it would be a very sad thing for Southern India, if owing to lack of funds it had to be closed down. It has turned out in the past, and is turning out at present, a number of very useful citizens chiefly from children whose parents are entirely unable to educate them, or who have no parents alive. If for any reason these Homes have to be closed, it will mean these children running about the bazaar ill-clothed and with no chance of education and no hope for the future.

I trust, therefore, that this will appeal to all of you, and that you will do whatever you possibly can to keep the St. George's Homes going."

The Chairman.—Gentlemen, I hope the Appeal of Mr. Congreve will not fall on deaf ears. I understand from Mr. James that Mr. Congreve who represents the Planting Community on the Board has given his time and energy to the work and, I trust, you will support him in this Appeal. (Applause).

I now adjourn the meeting to 2-30 p.m. this afternoon.

Wednesday, Third Day, 20th August, 1930.

(AFTERNOON SESSION).

The Meeting re-assembled at 2-30 p.m.

Political Department.

The Chairman.—Gentlemen, we will now take up item No. 18, "Political Department." The West Coast Planters' Association are bringing up a resolution.

Mr. H. J. Welmeley.—Mr. Chairman and Gentlemen, my resolution runs as follows:—

"This Association recognizes the value of the work being done by Mr. F. E. James, but is of opinion that the U.P.A.S.I. is bearing much more than its share of the expense of this work and considers that other interested parties must be asked to contribute a larger proportion of the expense if this Department is to be continued on the present lines."

This resolution does not criticise the Department, but is brought forward as a matter which must have the attention of this Meeting as we consider the cost of the Department is more than the Association can afford.

We agreed, some of us reluctantly, to subscribe Rs. 12,000 a year for a Political Secretary and this cost has risen to over Rs. 22,000 and will possibly be still greater next year. If the necessity for our keeping an expert member of the M.L.C. exists, it must also exist for other European bodies, and I think your Chairman and Mr. Congreve should frankly interview all other parties likely to be interested and see if some more equitable arrangement cannot be made.

If some other body is willing to employ an expert, then I can see no reason why we should not revert to a private member, as before, and contribute towards the cost of such an expert.

I have heard that there might be difficulty in getting candidates to take the seat if it fell vacant, but I can hardly think that this is so. We have always found public spirited gentlemen as Mr. Congreve, Captain Windle and Sir

Fairless Barber to act for us in the past. In the States of Mysore, Travancore and Cochin, we have found gentlemen to represent us. If no private gentleman does come forward, then we shall have to ask the big companies to take it in turn to release one of their men for this purpose, which, I am sure, you will find they will do. If this is not found to be workable, we might have to retain a Head Office in Madras and make a General Secretary who would act as Political Secretary and also control the Head Office with an Assistant to help him. Any one reading Mr. James's report must agree about the value of his work to the European group, but at the same time some of this work, such as his work on the Municipality, is of considerably more value to other bodies than to the U.P.A.S.I.

This resolution is again somewhat loosely worded, but if you will pass it, I think it would convey to the Executive Committee your wishes that the cost of the Political Department, whatever arrangement is made, must be reduced to a maximum of Rs. 12,000 annually.

Mr. J. H. Cantlay.—I second this resolution. It is owing to economy that I want this resolution. I have nothing further to add.

The Chairman.—Has any delegate anything to say on this subject?

Mr. A. J. Wright.—Mr. Chairman, I suggest that in the resolution the word "must" may be deleted and the word "should" may be substituted in its place.

Mr. H. J. Walmsley.—I accept the amendment.

Mr. P. F. C. Jourdain.—Mr. Chairman, may I express the opinion of the Cochin Chamber of Commerce? Before coming up here, I took the opinion of the Cochin Chamber of Commerce, and their opinion is that they are already represented on the Madras Legislative Council through the Madras Chamber of Commerce, by two very able men, and they are also represented in Delhi through the Associated Chambers, which cost them a good deal of money.

They realize the very great value of Mr. James's work, but, at the same time, they do not think they get any

direct value from him because they have their own representative on the Legislature. They get a very great indirect value, but whether that indirect value is worth more than they are paying, they are not so sure. The Cochin Chamber feels that their liabilities to Delhi and other expenses are as much as they can bear for the moment. If they are asked to pay more, they might have to withdraw their subscription. They do not want to hold out any threat, but what they feel is that it is rather a pity that when they have got their own men and they have got to help them, that they should now be asked to take a bigger share in your representative, and the possibility is, I think, that the Chambers of Commerce may say: "Well, rather than pay a higher subscription, we may possibly have our own men and not share with anybody." So, I am afraid, this Oliver Twist's policy of asking for more will possibly lead to a withdrawal altogether. That is a point worth considering. I do not know what other Chambers have got to say, but the Cochin Chamber of Commerce cannot contribute very much more than what they are now doing.

IN COMMITTEE.

Mr. H. J. Walmsley.—Mr. Chairman, may we know what contributions we are actually getting at the present time?

The Chairman.—Yes, I will ask the Secretary to read the figures out.

The Secretary.—The figures are as follows:—

Madras Chamber of Commerce ..	Rs. 3,600
Madras Trades' Association ..	.. 3,600
European Association ..	.. 2,400
Cochin Chamber of Commerce ..	.. 600
Calicut Chamber of Commerce ..	.. 600
Tuticorin Chamber of Commerce ..	.. 500
Coimbatore Chamber of Commerce ..	.. 300
Tellicherry Chamber of Commerce ..	.. 60
Total	Rs. 11,660

Mr. O. J. Egan-Wyer.—When the Political Department was first formed, did we expect more than what we are getting from the Associations?

The Chairman.—When the Department was first formed, we did not expect that we would get any support and that the whole cost would be borne by ourselves. As soon as Mr. James was engaged, the other Bodies came forward with their subscriptions.

Mr. O. J. Egan-Wyer.—I think we had estimated the cost at Rs. 12,000 a year.

The Chairman.—I think it was at the Annual General Meeting in 1928 that the original proposition for Rs. 12,000 a year was passed and that we should pay the whole cost, if necessary.

Mr. R. N. W. Jodrell.—When the expenditure was estimated at Rs. 12,000 a year, did not we receive promises from the other Bodies that they would subscribe certain sums?

The Secretary.—Mr. Congreve got the Madras Chamber of Commerce and the Madras Trades' Association interested and the original idea was that the Chamber of Commerce, Madras, would put up Rs. 1,500 a month, the Planters would put up Rs. 1,000 a month, the Trades' Association would put up Rs. 500 a month and, I think, at that time we hoped to get Rs. 300 a month from the European Association. In that scheme the Madras Chamber of Commerce was the leader. The scheme was started, I think, in 1924. We went on, at least for five years, budgeting for the amount of our contribution and never found anybody suitable for the post of Political Secretary. It was then, under instructions from a meeting here, that we gave an intimation to the Chamber of Commerce that, unless they could find somebody suitable, we would start the scheme ourselves and we finally did so. Then when we started the scheme, the Chamber of Commerce said that they were not responsible for the scheme, but that they would give a contribution of Rs. 300 a month.

Mr. R. N. W. Jodrell.—Did the Chamber of Commerce give any explanation for not running the Department themselves?

The Chairman.—I will ask the Secretary to reply to that.

The Secretary.—The explanation was that they could not find a suitable man. When they did not find somebody, we started our own scheme.

Mr. R. N. W. Jodrell.—When Mr. James was found, was the Chamber of Commerce given an opportunity to run it?

The Secretary.—No, Sir. This Association engaged Mr. James and at that time the Chamber of Commerce said that they would not have anything to do with the scheme. We had taken it out of their hands—later they agreed to contribute Rs. 300 a month.

Mr. H. J. Walmesley.—Gentlemen, I have suggested that the Chairman and Mr. Congreve should interview all the interested parties and see if some more equitable arrangement cannot be made.

The Chairman.—Mr. Walmesley, would you kindly repeat the suggestion you made?

Mr. H. J. Walmesley.—I suggested, while speaking to my resolution, that a deputation consisting of the Chairman and Mr. Congreve should interview all the interested parties, or parties who would be likely to be interested, and see if some more equitable arrangement cannot be made as regards subscriptions for our Political Secretary.

OPEN MEETING.

The Chairman.—Mr. Congreve, the resolution that is now before the meeting is as follows:—

“This Association recognizes the value of the work being done by Mr. F. E. James, but is of opinion that the U.P.A.S.I. is bearing much more than its share of the expense of this work and considers that other interested parties should be asked to contribute

a larger proportion of the expense if this Department is to be continued on the present lines."

Mr. C. R. T. Congreve.—Mr. Chairman and Gentlemen, as you know, when I first advocated the starting of this Department, I put figures before the Association. If my memory does not fail me, I believe, five years before this Department was actually started, an agitation in Madras was commenced and after a series of meetings, an agreement was reached between the Chamber of Commerce, the Trades Association and ourselves. According to that agreement—the Minutes of which unfortunately have been lost—the Chamber of Commerce agreed to pay Rs. 1,500, the Trades Association Rs. 500 and our Association Rs. 1,000. Our Association agreed that a representative should be found by the Chamber of Commerce, who agreed to pay the highest share. After four years when nothing had been done, Messrs. Pinches, Cotton, myself and Mr. Waddington held a meeting and informed the Chamber of Commerce that, if they were not prepared to keep to their original promise, we, on behalf of our Party, would appoint our own man. To cut that story short it was done and we released the Chamber of Commerce from the obligation. I personally am of the opinion that, in view of the fact that quite lately the Chamber of Commerce and the other Associations have laid it down that Mr. James should stay in the Legislative Council, rather than going to Delhi, we have the right to expect the Associations to subscribe a larger share of the expense incurred by that Department. (Applause). I think we have a very strong case to put up before those Associations. In this connection, I wrote to our Political Member and to our Secretary a D.O. letter informing them of this and suggested that they should approach these various Associations in Madras on those lines. But, I think, they quite rightly pointed out that our Political Secretary is an employee and our Secretary is also an employee. It was, therefore, not their job to do so. But it does lie either with your Chairman or such person, as you may appoint at this meeting, to approach those Bodies in Madras with a view to increasing their contribution to this fund. Whatever they may say, Gentlemen, there is not the slightest doubt that they equally with us realize the value of Mr. James's services

and recognize that Mr. James is in a peculiar position—a position which is absolutely chaotic.

Ever since Mr. James's arrival, there has been a measure of co-operation in the Legislative Council. When I first joined the Legislative Council, I used to sit there alone, because I had nothing else to do, and when there happened to be some resolution on which the Government were interested, a telephonic message was sent to the other European members of that House, asking them to come in a body and to vote for it. It was for that reason that I started the proposal for the appointment of a Political Secretary. I realize that at the present time we have a strong body in the House—a body to which the House would listen—a body which would make its view felt—and if we see every European member in that House getting up to speak to a resolution which has been carefully considered and carefully thought out—then that I maintain, Gentlemen, is entirely due to the personality and excellent work of Mr. James. (Loud Applause). I am convinced that if we approach the Chamber of Commerce and other similar bodies in Madras and elsewhere in this Presidency, we shall be able to get a largely increased subscription from them and, I think, it is up to—whoever you make your Chairman—to use every possible endeavour to get the money we require and I feel that it will be got. (Applause).

The Chairman.—Does anybody else wish to speak to the meeting on this question? If not, I will put the resolution to the meeting.

Proposed by Mr. H. J. Walmesley and seconded by Mr. J. H. Cantlay:—

"This Association recognizes the value of the work being done by Mr. F. E. James, but is of opinion that the U.P.A.S.I. is bearing much more than its share of the expense of this work and considers that other interested parties should be asked to contribute a larger proportion of the expense if this Department is to be continued on the present lines."

Those in favour of it? Those against?

The resolution is carried.

Simon Commission Report.

The Chairman.—Gentlemen, while we are on this item, I would like to know if any delegate has any questions to ask on Mr. James's Report which was read on Monday afternoon? If no delegate has anything to ask Mr. James on his Report, we shall take into consideration the report of the Statutory Commission. I will ask Mr. James to open the discussion.

Mr. F. E. James.—I only want to say one thing before we proceed to the consideration of the Simon Commission's Report in Committee.

You will remember that on Monday I mentioned, in my Address, that there were many divisions of opinion on the situation in India among the European Community, and the "Madras Mail" this morning has rather confirmed that view in its account of the meeting—a large meeting—which has been held in Calcutta of Europeans at which certain resolutions have been passed. The two main resolutions are:—

Firstly, that it is essential that seditious propaganda and unconstitutional agitation should be dealt with firmly, once and for all, and that all measures with regard to political advancement should be postponed meantime.

Secondly, that the Government of India Act should be repealed at once and the Morley-Minto Reforms of 1909 be brought into operation with such modifications, as may be necessary.

There is no indication as to what modifications are proposed.

There undoubtedly is a very strong feeling among the rank and file of the European community, in this country, that the mischievous propaganda of mis-representation which has been going on for many years, up and down the country, and which has culminated of late in the Civil Disobedience Movement, should be dealt with as firmly as possible by the Government. On the other hand, I think that the responsible leaders of the European Community would not be prepared to advocate a policy which means going back upon

promises that have been made to India by successive Sovereigns, by statesmen in high office, by Prime Ministers, by Secretaries of State for India and also by Statutes. I want to put it to you that the Gentlemen who met in Calcutta and passed a resolution asking that the existing Government of India Act should be withdrawn and that we should go back to the Morley-Minto Reforms, are asking Great Britain to go back upon her pledged word. If I felt that this representative meeting of Planters agreed with that view, then I should not suggest for one moment that we should proceed to consider the Simon Commission's Report.

The recommendations of Sir John Simon and his colleagues are based upon the promises laid down in the famous Declaration of 1917, which in themselves convey promises laid down before the Act both in word and in statute, and I feel therefore, in spite of all that is being said in different parts of the country—that the duty of the European Community, at the present moment, is to keep steady and to be prepared to consider the proposals which are put forward by a Commission, which came out from Home, as a result of the promises made by the British Government to India, to enquire into matters in this country and which has proposed certain far-reaching changes on the evidence placed before it.

I was anxious to say this at this stage and I shall be very glad if any member of the audience would discuss this particular point before we go any further to discuss the Simon Commission's Report in Committee. If we do hold the view that has been expressed in Calcutta, then there is no use considering the Simon Commission's Report. But if we hold the view which I attempted to express the other day—that on general grounds we give our most whole-hearted support to His Excellency Lord Irwin, in his administration and in his attempt to bring about a permanent settlement of the constitutional difficulty as between Great Britain and India; then, I think, we can go forward and discuss the recommendations of the Simon Commission.

I do not know whether any one wishes to say a word on this point? I will resume my seat in case any one wishes to express an opinion.

The Chairman.—I would ask members to speak and to give their views on the question which Mr. James has asked.

Mr. T. Davenport.—Was the meeting that was held in Calcutta, a combined European Association Meeting?

Mr. F. E. James.—The meeting that was held in Calcutta was not a meeting of any official Association, whatsoever, as far as I can make out, but it was a meeting called by a number of Europeans who felt that the policy of the European Association, in the past few months, in supporting His Excellency Lord Irwin, in proceeding to discuss the proposals of the Simon Commission's Report and in taking those recommendations as a basis of their policy, did not have the confidence of Europeans in India and, therefore, those few, who felt that, summoned this meeting and the meeting was very largely attended and these resolutions were the result.

Now to-night, I believe, in Calcutta, the Calcutta Branch of the European Association is holding a meeting, at which they are to put forward the official recommendation of the European Association, there, which is:—

"That this meeting approves the recommendations of the Simon Commission's Report, subject to such modifications, where necessary, as shall better ensure strong Government, justice to all sections of the Community, preservation of personal rights and complete equality of the trading system between British and Indian subjects of the Crown in India."

That, of course, is a very comprehensive resolution, but it is the only way of dealing with a matter like that, at a large public meeting.

Then, I take it, that this meeting does approve in general terms, the policy that I attempted to express on Monday afternoon and that we do proceed to consider the recommendations of the Simon Commission's Report.

I also take it that this meeting does endorse the sentiments which I expressed on Monday in regard to the support which the European Association has given officially to His

Excellency Lord Irwin in his difficult task. I was not expressing my personal view. I was expressing the view which is that of the official Committee and Council of the European Association—and I take it that I may report to them when I go to Calcutta, next week, that the Planters, present here at this Annual Meeting, feel that “we do support them in their general policy.”

The Secretary.—Mr. James, there is one point which I should like to be cleared up. You suggested on Monday that we should become Indian citizens. Now if we do become Indian citizens, do we give up our right to be tried as Europeans? Do we give up that right by being Indian citizens?

Mr. F. E. James.—Perhaps we should discuss that when we take up the discussion of the Simon Commission's Report in Committee and deal with safeguards.

IN COMMITTEE.

Mr. F. E. James.—I should like to make one very small correction, and that is, that we do not want to put ourselves in a position, of having to go to the Indian to ask for Indian citizenship and I made no such proposal. My proposal is that what I claim to be the right of every Britisher in this country, by his association with India, by the long connection between Britain, and India, by the services which Britain has rendered to India, should be recognized by statute as a right. That is the whole point. That is the basis of my argument from the beginning to the end. It is nothing that we demand as a favour. It is something that we ask for as a right, and we want to see that right put into the Constitution in a place from which no Indian Legislature can ever remove it. That is why I ask that that statutory clause, which I spoke of, should be inserted in the Government of India Act. I wanted to explain that, in case there was any misapprehension in the mind of any planter present.

Now with regard to the Simon Commission's Report itself, the “Planters' Chronicle” published a summary of the

recommendations. Those recommendations have been considered by a Conference of Europeans in Calcutta, representing different parts of the country, and they have been sent to all Branches of the European Association for their opinion.

Recently in Madras a Joint Conference was held of representatives of the European Association, the Trades Association, the Chamber of Commerce and the U.P.A.S.I. In the first place, they discussed the question of Provincial Government. Although the proceedings of that Conference have not yet been published, I think I can tell you in brief what the general conclusions are:—

Firstly, we approve in general the Simon Commission's recommendations in regard to Provincial Autonomy, including the transfer of the Police Portfolio to the Ministry.

Secondly, we agree with the proposals of the Simon Commission that communal representation should be retained and that special constituencies—such as Commerce, Planting and Trades—should remain represented in the new Legislature.

Mr. T. Davenport.—Mr. Chairman and Gentlemen, I think this meeting ought to express a definite opinion on the recommendations of the Simon Commission—either that we approve of them or that we do not. Mr. James is representing us at a meeting of the Council of the European Association and, I think, it would give Mr. James more confidence to know, to what extent he has the support of the Planters behind him. I should, therefore, like to know whether the meeting will agree with the following resolution:—

“That this meeting approves of the main principles of the Simon Commission and has complete confidence in leaving recommendations for the framing of the new Constitution in Mr. James's hands, asking him to bear in mind our interests—especially where he may represent us—as developments proceed in relation to:

- (1) Discriminative legislation;
- (2) Judicial rights of Europeans; and
- (3) Unfair taxation.”

Mr. F. E. James.—If there is no question to be asked with regard to the Provincial Government, there is one matter that I want to mention, before I leave that and go to the general recommendations with regard to the Central Government. That is very important to us—namely, the question to representation of Labour.

The Simon Commission's Report emphasises the extreme importance of labour being adequately represented in the new Legislative Councils, but they make no recommendations, on the ground that the Whitley Commission will probably make the necessary detailed proposals. In Madras this matter was left to the Employers' Federation to deal with, and I have seen a copy of their recommendations, but it must be understood that when you speak of the representation of labour in the new constitution—most people are considering industrial labour—labour which may be organized along Trade Union lines. As far as I can see there can be no possible provision for the representation of agricultural labour, save either through nomination or through the ordinary representation in general constituencies. But I should like to have some opinion on that particular point, because that is a question which is shortly to be raised in Calcutta next week.

The Chairman.—Mr. Congreve, have you anything to say on that point?

Mr. C. R. T. Congreve.—Mr. Chairman, as far as I remember, we stressed this point very considerably in the Memorandum that we sent to the Simon Commission, and pointed out that as agricultural labour was at the present time entirely illiterate, it was quite impossible that they should be allowed to elect representatives either on the Legislative Assembly or on the Legislative Council, but that they must be represented by nomination. If you allow them to give the vote, what would happen is that some clever politicians would go down to the villages—a man who had no status whatever in Labour, who cared for nothing else but to be elected to the Legislature as a nominee of Labour—and once he was elected he could not go until the next elections come along. I think it is most important, so far as the local labour is concerned, that they are not given the vote,

but they do have nominated members to represent them in the Legislature until such time as education is sufficiently advanced, for them to be able to express their own opinion. With this idea last year, I proposed a resolution which has met with a great deal of opposition. I suggested we set the ball rolling, by starting the education of a few children connected with our labour, so that in future they would be in a position to represent their own community. I think we ought to tell Mr. James, now, that we are entirely against the vote being extended to agricultural labour, either at the present time or in the near future, but that we do ask him to push forward our recommendations, which are embodied in our Memorandum, to the best of his ability so that agricultural labour might be represented by nominated members. (Applause).

Mr. F. E. James.—What kind of person have you in view as being the most suitable for agricultural labour?

Mr. C. R. T. Congress.—There are a certain number of people. We have three in the Madras Legislative Council who have sprung from the labour class. The late President of the Madras Legislative Council is one of them. There are a few people who have sprung from such classes who have the ability and who are well educated and, I think, we ought to look to that type of men to represent the labouring classes, at the present time. The present nominated members have sprung from that type of labour and that is the type of people we should try to encourage to come forward and to represent the people. On no occasion should a politician be allowed to represent such people, with whom they have nothing to do, and about whom they know nothing.

The Secretary.—I think I may tell you this much. Gentlemen, the Chamber of Commerce and the European Association have absolutely set themselves against advocating any form of nomination and, I think, Mr. James referred to the fact that this matter was sent back for consideration to the Employers' Federation. They have duly considered the matter and agreed that they would not advocate any form of nomination. Their suggestion was that the labour constituencies should consist of men who were in regular employment and were receiving pay from an employer for

six months before the electoral rolls were compiled. They also advocated that they should be earning Rs. 30 a month either by wage or by piece-work. Of course, as time goes on, you will have to reduce that a good deal. It is a very high figure. But when starting a labour constituency, you have to put the figure rather high. The idea was that whoever was elected by the Labour Constituency must himself be a labourer drawing pay. That was the main line on which the recommendation was made.

Mr. C. R. T. Congreve.—It seems to me that the Chamber of Commerce had in view the industrial labour. How many agricultural labourers are there in India who are drawing anything like Rs. 30 a month? Are they entirely wasters? Our job as the employers should be to see as to who should represent them and in what way we can secure the best representatives. The course suggested by the Chamber of Commerce would not be a satisfactory way of doing it.

The Secretary.—Where should the nominations come from?

Mr. C. R. T. Congreve.—The nominations should be made by the Governor—they should come from the United Planters' Association until such time as education is sufficiently advanced.

The Secretary.—I fully agree with that, but I must say, now, I am rather convinced that the sooner we give up this idea of getting people on the Councils by any form of nomination the better it will be.

Mr. T. Davenport.—May we not safely assume that the number of seats occupied by landlords already exceed the number of reserve seats? All excess seats are representing agricultural labour.

Mr. A. J. Wright.—According to the Simon Commission's Report the reservation of landlords' seats would have to be abolished.

Mr. F. E. James.—Our Conference did not approve of that the other day. Being landlords ourselves, we strongly sympathise with the landlords in the Madras Presidency

and, although, we believe that, ultimately, the reserved seats would have to be abolished, we were not prepared to advocate that they should be abolished now and, I believe, a period of ten years was suggested.

In regard to the Central Government, I think, without going into details, it could be generally said that the main outline of the Simon Commission's recommendations was accepted by the Conference in Madras, with this very important exception, that they felt that the proposals in the Report for the safeguarding of the interests of minorities were not adequate and they felt that other safeguards should be advocated :—

- (1) The existence of a Second Chamber.
- (2) Those statutory proposals which I mentioned on Monday in my speech.

In regard to those statutory proposals let me again say that the acquiring of Indian citizenship under that statute does not in any sense take away any existing rights which you might hold as a British citizen. It is possible, for example, in a Dominion, for a person to be a citizen of that Dominion and also a British citizen. When he becomes a citizen of a Dominion, he does not surrender his citizenship of Britain and, therefore, the same principle will hold good in regard to any suggestion of Indian citizenship. And secondly, one other feature of this proposal is that we do not claim any protection simply for our own community. We say that there should be no discrimination allowed as between any class of Indian citizens of whatever race, nationality or religion. Therefore it is likely that this proposal would receive the support of Mahomedans and also of other minorities in this country. The Conference in Madras accepted those proposals as a basis for their recommendation to Calcutta next week. If any member here can suggest any better way in which our interests can be permanently safeguarded under statute, I shall be very glad to hear it.

Mr. Waddington raised an important point, which was raised last night at the meeting of the European Association. Supposing I became an Indian citizen under the proposed statute, what happens to my peculiar rights, which at

present exist under statute, in regard to trial by Jury and trial by a High Court? You know that at present in the existing Government of India Act—I think it is Section 65—there is a Clause which says:—

“That the Indian Legislature has no power, without the previous approval of the Secretary of State in Council, to make any law empowering any Court, other than a High Court, to sentence to a punishment of death any of His Majesty’s subjects born in Europe or the children of such subjects.”

I hope none of you will ever be guilty of deserving death, but still that is the Government of India Act at present.

There is also, under Indian law, a safeguard in regard to Europeans who are accused of certain offences. I cannot go into the details here, but under certain circumstances, if it is an offence of a certain class, a European can claim to be tried by a Jury of whom the majority are Europeans. Also in the mofussil a European who is accused of certain charges, may insist upon being tried by a Bench of two Magistrates, one of whom is a European.

Now, the objection which has been raised is that if additional powers are given to the Legislatures in this country, is it not possible that these rights which are subject to laws which are passed by an Indian Legislature, might be taken away? You may remember that at that particular time—I think it was in 1923—it was openly stated in the Legislative Assembly, when the Bill was introduced, that it was a compromise and that the Indians when they get complete control would immediately remove these special privileges which now British subjects hold in this country. And, therefore, it is undoubtedly a very good point for us to consider. The proposal that is being made, and is now circulating amongst the British legal opinion in this country, is that those safeguards which are now in Indian Statute, should be transferred and be incorporated in Imperial Statute, which could not be altered except by the House of Commons and the House of Lords. The Clause that I have just read to you, with regard to the rights of Europeans being tried by a High Court, is in a British Act and it therefore cannot be

altered except by the British Parliament. The proposal now is that all the additional safeguards, to which I have referred, and which are at present in Indian Acts, should be transferred either to a separate British Act or should be incorporated in the new Government of India Act. That, I think, would meet the case. Supposing that is not possible, then the fact that we may acquire the rights of Indian citizenship would not necessarily alter the existing provisions of the Indian Act, but, probably, one or two slight amendments would have to be made, to bring that law into line with the new proposal in regard to the Legislature. I hope I have made the point clear.

The Chairman.—Has anybody any questions to ask Mr. James? If not, I will ask Mr. Davenport to move his resolution.

Mr. T. Davenport.—Mr. Chairman, I am afraid that the resolution is very loosely worded and is not quite as I would like it to be, but, perhaps, Mr. James would be satisfied to accept it as an expression of opinion rather than formally putting it into a resolution.

The Chairman.—Does the meeting agree to have it as an expression of opinion rather than being put formally as a resolution?

Mr. T. Davenport.—It reads as follows:—

“That this meeting approves of the main principles of the Simon Commission and has complete confidence in leaving recommendations for the framing of the new Constitution in Mr. James’s hands, asking him to bear in mind our interests—especially where he may represent us as developments proceed in relation to:—

- (1) Discriminative Legislation;
- (2) Judicial rights of Europeans; and
- (3) Unfair taxation.”

The Chairman.—I take it that the meeting is in favour of that.

Mr. C. R. T. Congreve.—There is one point, Mr. James, which we should take notice of, namely, the recommendations with regard to taxation.

Mr. F. E. James.—The reason why I did not mention that, specifically, is because those recommendations with regard to taxation will, I take it, form no part of the new Constitution.

The only question in which those proposals may affect the new Constitution would be in regard to:—

- (1) The division of subjects as between the Central and the Provincial Governments.
- (2) The financial adjustment as between British India and the Indian States.

Those are the two main lines. But as far as taxation is concerned, for example, the proposal to tax agricultural incomes, that would have to be fought out in the Indian Legislatures, after the new Constitution has come into existence.

I think I may also add that, as far as the taxation proposals are concerned, they are under a very great criticism and scrutiny by the various Chambers of Commerce. It is quite clear that the Planters both here and in the North would very strongly oppose the proposed taxation on agricultural incomes. That proposal would also be opposed by practically all the landlords here and elsewhere. But, I think, as far as the other proposals are concerned, you may rest assured that the British commercial interests will put forward a very careful criticism of them in due course. In the meantime, I think, I may take a definite mandate from this Association that we feel particularly strongly on the question of agricultural Income-tax. (Loud Applause).

The Chairman.—Well, Gentlemen, I understand from Mr. James that that closes the business under "Political Department."

I think we might adjourn the meeting till to-morrow morning 10 o'clock.

Fourth Day, Thursday, 21st August, 1930.

(MORNING SESSION).

The Meeting re-assembled at 10 a.m.

Subscriptions and Disposal of Credit Balances.

The Chairman.—Gentlemen, we will now take up item No. 10, which was postponed yesterday. The Mysore Planters' Association have a resolution to move.

Mr. E. W. Fowke.—Mr. Chairman, I beg to move the following resolution:—

“That the Coffee cess paid by Mysore to the U.P.A.S.I. be reduced to two annas per acre less than that of other Districts.”

We have always paid two annas less than the other Districts until this year. I have just found that in the year 1925 the following resolution was passed.

Proposed by Mr. Fowke and seconded by Mr. F. Simmons:—

“That in view of the determination of the Mysore Government to establish and carry on an experimental farm of coffee and minor planting products, the two annas cess on coffee be continued.”

That resolution was carried, and the report continues:—

“The Secretary:—My instructions are to take two annas and not to collect it from Mysore unless this Act fails to go through.” The Act has gone through.

The Chairman.—Mr. Fowke, with reference to what you have said, I think you have overlooked the fact that, since 1925, your own special Scientific Officer, Mr. Mayne, has been engaged.

Mr. E. W. Fowke.—We are paying two annas an acre. The Upasi coffee cess of two annas should not be collected from us strictly speaking.

IN COMMITTEE.

The Chairman.—Well, Mr. Fowke, the Secretary has some information on the point. I will ask him to give it to you.

The Secretary.—I would simply say this. It was decided in 1925, that we should not collect the coffee cess from Mysore; then a new arrangement came into force, namely, to appoint a special Scientific Officer. What we are charging Mysore is a portion of the cost of that Officer and not of the Scientific Station, because we have not got a coffee Scientific Station of our own. I am sure that Mr. Fowke does not mean to pay nothing towards the cost of Mr. Mayne? But the only way of giving effect to the Mysore resolution before us, that Mysore shall always pay two annas less than the other coffee districts, is, if we are to raise, say, Rs. 5,884 by means of a coffee cess to make the cess for Mysore at nine pies per acre, and for the other areas at 0-2-9 per acre. That would bring you in the same amount as the present cess of 2 annas allround. In 1925 no one had thought about the engagement of Mr. Mayne. Mr. Mayne has since been engaged and we have to collect a cess to meet the cost of his appointment.

Mr. E. W. Fowke.—Our argument is that we have obtained the land from the Mysore Government.

The Chairman.—There is one thing which I do not quite understand, Mr. Fowke. This cess of two annas per acre is for the Upasi Coffee Scientific Department. That cess was put forward in the Budget this year and passed. I take it that the Mysore delegates were present, and if they were not present, there was somebody to act for them at the Budget Meeting.

Mr. E. W. Fowke.—On that point I have no information, but I have been asked to move this resolution here.

The Chairman.—Then would the Secretary's suggestion meet with your approval, that is, Mysore should only contribute nine pies per acre against 0-2-9 from the other Coffee Associations?

Mr. S. H. Dennis.—I think that is an able solution of the problem.

Mr. E. W. Fowke.—Yes Sir.

The Chairman.—I would like to hear the views of the other Coffee Associations.

Mr. A. E. J. Nicolls.—Mr. Chairman, on behalf of our Association, I would say that we would willingly support that suggestion, because at the present moment, it is not fair for Mysore to pay four annas, whereas we only pay two annas. Without them the Scientific Station would not be running. We would be willing to support that suggestion.

Mr. S. H. Dennis.—The two annas that we pay to our Mysore Experimental Farm is not calculated according to what the other Associations pay, but it is based on the whole of our area cultivated and non-cultivated.

The Chairman.—Do you know why that was?

Mr. S. H. Dennis.—Because of the Mysore Government Act.

The Chairman.—Oh, I see it.

Mr. E. G. Cameron.—Mr. Chairman, I would like to oppose the resolution. The Mysore Planters derive benefit from the fact that the Station is quite close to them. It is not fair that they should pay less than the outside Associations, which are far away. It is very expensive for the outside Associations to inspect the work that is going on at the Station.

Captain E. H. A. Travers-Drapes.—Mr. Chairman if we were determined to have an experimental station, we would have had one without the Mysore Government. The fact remains that the Mysore Planters get as much benefit from Mr. Mayne's services as the other Planters, and the question is: are they not willing to pay an equal share for Mr. Mayne's services? If not then either we must do away with Mr. Mayne altogether or we, the outside planters, must bear the whole burden.

When this question first came up, Mysore very loyally came forward and agreed to pay an extra two annas. We admit that times are just as hard for them as for us, but, I think, if Mr. Mayne is to continue with us, that they ought to share the burden equally.

Mr. E. W. Fowke.—Mr. Travers-Drapes has said that if we did not have a Coffee Experimental Station at Mysore, we would have had our own, but Mr. Travers-Drapes forgets that Mysore is paying Rs. 40,000 a year for their station.

The Chairman.—Mr. Fowke, it is the extra two annas which you pay to the Mysore Government. Do you get the benefit of special scientific advice which the other planters do not get from Mr. Mayne?

Mr. E. W. Fowke.—Nothing extra.

Captain E. H. A. Travers-Drapes.—Am I right, Sir, in saying that the Mysore Experimental Station Officers, including Mr. Mayne, are at the disposal of the Mysore planters? If they require advice they call upon them and get the necessary advice. If they require money for spraying, etc., the Mysore Government advances them money and recovers the same from the coming crops.

Mr. S. H. Dennis.—Oh, no.

Captain E. H. A. Travers-Drapes.—That is what Dr. Coleman said I think.

Mr. S. H. Dennis.—We have never asked for any loan from the Mysore Government for any purpose whatever. Mr. Travers-Drapes' remarks refer to the Indian planters, and not to the European planters.

The Chairman.—The Secretary has worked out the figures so that all the other Districts should pay 0-2-9 per acre and Mysore should pay nine pies per acre. Would you object very much to paying an extra nine pies per acre?

Captain E. H. A. Travers-Drapes.—We would not object to paying nine pies or an anna. The principal thing is what will happen in the future? Is Mysore always to pay

their portion less, and as time goes on we shall have to raise more and more money? Do they agree to contribute their share or not? Is it to be fixed at nine pies per acre?

The Secretary.—As long as it is two annas less than what other Districts are subscribing.

Mr. H. J. Walmesley.—I understand that the Mysore Government Coffee Station is supported by the Mysore planters and not by the others. Is that right? The proposal now is that the others should pay nine pies more than the Mysore planters.

The Chairman.—No, two annas more.

Mr. H. J. Walmesley.—But is the Mysore Station worth two annas? If it had not been for the Mysore Station, would they get all that benefit from an outside Station for two annas? They are saving two annas per acre by this Mysore Station.

The Chairman.—I do not know. I should imagine they are saving two annas per acre. I should like to know that from the coffee delegates.

The Secretary.—I do not know whether it is quite understood by the meeting that after 1925 for four years the arrangement was that Mysore should pay two annas less than any other coffee districts. It was only from this year that we asked for an all round subscription of two annas. Mysore is obviously asking for what it had paid up to this year.

Mr. E. W. Fowke.—Mr. Dennis and myself are willing to accept the nine pies.

The Chairman.—Then you will amend your resolution Mr. Fowke.

The Secretary.—The Chairman asks me whether the amount should not be definitely put in the resolution, *i.e.*, that Mysore should pay nine pies and the other Associations 0-2-9. I think the Mysore Planters' Resolution is very much better, because Mr. Mayne's pay is steadily increasing and it is very likely that it will be necessary next year to collect one anna per acre from Mysore and three annas per

acre from the other districts. It is no use fixing the sum now because we are bound to increase it as Mr. Mayne's pay increases.

Mr. E. W. Fowke.—You may fix it up for one year and take the matter up again at the next meeting for another year.

The Secretary.—Mysore having carried the point, I hope they will let this year's subscription stand and let this be the arrangement from next year. We have already got through half the year. We decided yesterday that we would not collect any subscriptions for the last half-year. If you persist upon this coming into force as from the 1st of April last, then we will have the difficulty of adjusting the three pies which is hardly worth while. But in view of the fact that no subscription is to be paid for the last half-year, Mysore may agree to let this come into force from the 1st of April next year.

Mr. H. J. Walmesley.—It is only the general subscription and not the coffee or the tea cess which is to be remitted.

The Secretary.—I was mistaken.

The Chairman.—Mr. Fowke you want the words "be reduced" to be substituted by the word "revert" in your resolution?

The Secretary.—The Association gave notice of that sometime ago. Will you add the words: "as from the 1st of April last," if you want to bring it in this year?

Mr. E. W. Fowke.—Yes.

OPEN MEETING.

Mr. A. E. J. Nicolls.—I second the resolution. May I speak to it? Mr. Chairman, in winding up this debate, I would like to just make one or two remarks. I think the other Coffee Districts lost sight of the fact that, if we had not the benefit of the Mysore Station, we would have had to have a Station of our own, which would cost us a very large sum of money and our subscription would be higher. We are all paying for a common object and it is absurd to say that Mysore gets more benefit than other Districts. We

have been paying two annas and we are asked to pay another nine pies. What is nine pies?

Captain E. H. A. Travers-Drapes.—Mr. Chairman, I hope the remarks that I made will not be taken as a criticism of what the Mysore Planters have been saying on this subject. It was really to elicit information and to ascertain how we stand exactly in this matter that I made those remarks. If it comes to the question of increasing the expense I presume they are quite willing to meet their share later on. I understand that however much their cess may increase it will always be just two annas less than that of districts outside Mysore.

The Chairman.—Yes, Mr. Travers-Drapes that is correct. Mysore will always pay two annas less than the other Coffee Associations.

I should like to mention just one other point which the Secretary tells me we appear to have lost sight of. Hitherto we have received a subscription from the Coorg Administration of Rs. 2,350, but appear to have lost that, so that in future it will be Rs. 8,234—which by means of a cess must be raised and not Rs. 5,884 as received at present.

Mr. A. E. J. Nicolls.—Mr. Chairman, with regard to the donation from the Coorg Government, the matter has been held up I know, but I think in a little more time we will get the money. This matter will come before the Legislative Council of Coorg and I feel fairly confident that it will be passed.

The Chairman.—I am very glad to hear that Mr. Nicolls. If no other delegate has anything to say on this question, I will put the resolution to the meeting.

Proposed by Mr. E. W. Fowke and seconded by Mr. A. E. J. Nicolls:—

"That the coffee cess paid by Mysore to the U.P.A.S.I. revert to two annas per acre less than that of other Districts as from 1st April last."

Those in favour of it? Those against?

The resolution is carried.

Buying Agency.

The Chairman.—Well, Gentlemen, we will now go on to item No. 14—Buying Agency. A resolution has been circulated on this question, but I have decided to bring it up before the meeting under the item—“Planters’ Chronicle.” If no one has any matter to bring forward in respect of the Buying Agency, we shall go on to the next item.

Mr. H. J. Walmesley.—I understand there is a proposal to pay the salary of the Assistant Secretary from the Benevolent Fund. I think there will be a lot of calls on the Benevolent Fund and I do not think it is desirable to pay the salary of the Assistant Secretary from this Fund.

The Chairman.—Mr. Walmesley it seems quite fair to charge a portion of the salary of the Assistant Secretary to the Buying Agency. After all the Assistant Secretary has got to do a great deal with the Buying Agency.

Mr. H. J. Walmesley.—I thought Rs. 150 was the figure which seems rather high at the expense of the Benevolent Fund.

The Chairman.—Mr. Walmesley do you want to move a resolution? The Committee decided at their meeting on the 15th of June that this extra portion of the salary should be charged to the Buying Agency. This question was before the meeting of certain Tea Planters at Ootacamund and they were also in favour of the proposal.

Mr. H. J. Walmesley.—I have some idea that the Buying Agency cannot increase.

The Secretary.—I think we have charged Rs. 100 a month in the past. Rs. 150 means an increase of Rs. 50 I am not sure.

Affiliated Associations.

The Chairman.—Is there anything else under Buying Agency to be brought forward? We will now go on to the next item—Affiliated Associations. Has any delegate got anything that he wishes to bring forward regarding this matter?

Mr. H. J. Walmesley.—Does the Anglo-Dutch Rubber restriction liason committee come under this heading?

The Secretary.—I should think it might.

The Chairman.—Do you wish to bring forward a resolution Mr. Walmesley?

Mr. H. J. Walmesley.—I wish to move:—

“That this meeting unanimously adopts the conclusions of the Anglo-Dutch Rubber restriction liason committee.”

The Secretary.—I have got that down under “Rubber.”

The Chairman.—It is better you bring it up under “Rubber.” If there is nothing else under “Affiliated Associations,” we will go on to the next item.

Water Tax.

Mr. R. N. W. Jodrell.—Mr. Chairman, we have given notice of a resolution, but with your permission I should like to withdraw it and substitute another in its place.

The Chairman.—Will the meeting give permission to Mr. Jodrell to withdraw his resolution and to substitute another in its place? I take it that permission has been granted.

Mr. R. N. W. Jodrell.—I beg to move:—

“That this Association do represent to the Madras Government the injustice of levying a tax on water used for industrial purposes from streams and rivers the beds of which are included in the pattas and are assessed to land revenue.”

Captain E. H. A. Travers-Drapes.—I second the resolution.

Mr. R. N. W. Jodrell.—Mr. Chairman, during last year an attempt was made to collect tax for water, used for industrial purposes, in our factories. The demand was made from July 1928. Protests were made to the Local

Authorities without avail. Our point, as indicated in this resolution, is that we are already paying water tax on the area of the stream from which we draw the water, and we believe that if the bed of the river is vested in the proprietors of the land, exemption from the tax is bound to follow. We cannot believe that it is the intention of the Government to tax us twice or rather to take revenue twice from the same origin.

Captain E. H. A. Travers-Drapes.—I have nothing to say except that it seems to me that if tax is already paid for water used from a stream, the proprietor has riparian rights and as such it is not fair to levy any tax.

Mr. F. E. James.—Mr. Chairman, it seems to me that there are grounds for a re-consideration of the matter, in the case of those proprietors, whose patta does definitely include the bed of streams or rivers, and I suggest that if Mr. Jodrell would send me the file which he has in that connection, I will take it up immediately with the Board of Revenue in Madras who are the proper authorities to deal with that appeal.

Mr. R. N. W. Jodrell.—I shall have much pleasure in doing so.

The Chairman.—Mr. Jodrell, this matter came up before the Executive Committee some time ago and they decided that it would be better to take legal opinion. That legal opinion has just been received. I would ask Mr. James to read it.

Mr. F. E. James.—Mr. Chairman, I would suggest that we do not read out the whole of the opinion, but only the main conclusions which are as follows:—

"It would appear to follow from these cases that any member of your Association can, as a riparian proprietor, use the water for manufacturing purposes provided the conditions above mentioned are satisfied.

But, if any member of the Association is unable to prove that the bed of the stream or river running through his estate is not assessed to land revenue and is not included in his patta or is not held from a Malabar jenmi, clearly Government is the owner of the bed of the stream or of the water flowing thereon by virtue of the Madras Land Encroachment Act,

Or again it may be held that, notwithstanding the inclusion of the bed of the river or stream in the patta and its assessment to land revenue and notwithstanding its being held under a Malabar jenmi, Government is such owner.

In either of such cases, the charge levied by the Government for the use of the water cannot be resisted, unless the member establishes that he has acquired a right of easement to the free use of such water by reason of user extending over a period of 60 years. The right so acquired would be limited by the extent of the user during such period and it cannot be enlarged so as to use the water for manufacturing or other purposes which have been commenced within the 60 years.

The burden of proving an acquisition by easement would be upon the person making the claim and proof of open and continuous user during the statutory period should be given.

We do not know how many of the members of your Association can make claims on the footing of easement acquired by prescription, and what the amount is that is now being levied from those members who can make a claim only as riparian proprietors.

If the levy made by the Government is considerable and the right claimed by the members valuable, we suggest that in view of the authorities quoted above, the matter might be tested in a court of law, a good example being selected for the purposes of a test case.

We must, however, add that the law relating to the right of landholders to the free use of water in natural streams and rivers and the right of Government to levy a charge therefor is extremely difficult and complicated and in the absence of an express decision covering the exact question raised, it would be hazardous to express a definite opinion as to the view that will ultimately prevail in the final Court of Appeal."

In a matter like this some expensive Law suit might result, but probably a certain amount of difficulty might be cleared away by taking the matter to the Board of Revenue Authorities direct, and if you will allow me to do that, I will report, at the earliest possible moment, the results of those conversations.

The Chairman.—Has anyone else anything to say regarding this water tax question? If not, I will put the resolution to the meeting.

Proposed by Mr. R. N. W. Jodrell and seconded by Captain E. H. A. Travers-Drapes:—

"That this Association do represent to the Madras Government the injustice of levying a tax on water

used for industrial purposes from streams and rivers, the beds of which are included in the pattas and are assessed to land revenue."

Mr. R. N. W. Jodrell.—May I ask Mr. James as to whether he will address the Madras Government or the Board of Revenue?

Mr. F. E. James.—The Revenue Authorities of the Madras Government.

The Chairman.—Mr. Travers-Drapes, do you agree to this slight amendment?

Captain E. H. A. Travers-Drapes.—Yes, Sir.

The Chairman.—The resolution then reads as follows:

"That this Association do represent to the Revenue Authorities of the Madras Government the injustice of levying a tax on water used for industrial purposes from streams and rivers, the beds of which are included in the pattas and are assessed to land revenue."

Those in favour of the resolution? Those against?

The resolution is carried.

The Chairman.—If there is nothing else under this item of water-tax, we will go on to the next subject, namely, the Malabar Tenants' Improvement Act.

Malabar Tenants' Improvement Act.

Mr. A. R. Innes.—Mr. Chairman and Gentlemen, I beg to move the following resolution:—

"That the Madras Government be requested to introduce or facilitate the introduction of a Bill in the Legislative Council for the extension of the provisions of the Malabar Compensation for Tenants' Improvement Act, 1899, to the Gudalur Taluk of the Nilgiris and that the Planting Member be asked to make representations to that effect."

The resolution is in no way contentious and only affects the Nilgiri-Wynaad and has had your support in the past. The subject is not new to you, as it was originally brought forward in 1920 and again in 1921, but in view of the long period that has elapsed, I may give a very brief history of the subject in order that my Association may solicit your sympathy and assistance in what we consider such a just cause.

In the first place it must be understood that the Nilgiri-Wynaad formed a part of the Malabar District up to the year 1877, but in that year the District was transferred for purely administrative purposes to the Nilgiris. Land was held under the same tenure as prevailed in Malabar and conditions were in every way similar to those obtaining in Malabar.

Due to rapacity of the landlords and the consequent agrarian troubles, the Government introduced the Compensation for Tenants' Improvement Act into Malabar, which compensates the tenant for the full value of the improvements he has made, at the expiration of the lease if the same is not renewed.

Owing to the transfer of the Nilgiri-Wynaad to the Nilgiris, the necessity for the introduction of the Act into this District was overlooked and we have the anomaly of the tenants of Jenmis in this District being debarred from compensation for improvements, while the tenants of Jenmis in Wynaad have full security in this respect, although the system of land tenures is absolutely identical in other respects, and the abuses that forced the introduction of such an Act into Malabar can be practised in Nilgiri-Wynaad with impunity. As the result of our representations, the Government of Madras drafted a Bill in 1921, but nothing came of it.

I am sure my District will have your unanimous support in this matter and I am convinced that Mr. James will be able to enlist the support of his fellow legislators and pilot through this Bill which is of such importance to the tenants and planters of Nilgiri-Wynaad, to a successful issue.

Mr. R. N. W. Jodrell.—I second the resolution.

The Chairman.—Has any delegate anything to say on this matter?

IN COMMITTEE.

Mr. F. E. James.—May I say a word, Sir? First of all, I think, it is clearly understood, by the mover of the resolution, that it may not be possible to make legislation along the lines proposed with retrospective effect. Secondly, I think that a slight injustice has been done to the Government, by my friend's speech in that he mentioned the fact that a draft Bill was prepared and then it was dropped for no appreciable reason. I have had an opportunity of looking into the files and I find that a draft Bill was drawn up by Government and a letter was addressed to the Association—I think by the Development Department—on the 11th December, 1922, stating the difficulties which the Government had in regard to bringing forward this legislation, and answering those specific points which were made by the Association for any legislation to be effective—and the letter, I think, closes with the paragraph that, in view of those considerations, they would be glad to hear further from the Association. The Government waited for more than a year, and not hearing anything further from the Association closed the matter in their files, as is the wont of Governments. So that, I think, in a sense, we have been to some extent, to blame in not putting the matter forward after that correspondence was closed.

There is only one other point which I should like to mention, and that is, there is no chance of legislation along those lines, unless we can enlist the sympathy, not only of the Government, but also of the other representatives in the Legislative Council who are particularly interested in this District. I do not know whether any attempt has been made by the Local Association to do that. Mr. R. Fowke may be able to tell us.

Mr. R. Fowke.—This question has been closed for a good many years and has been brought up recently by my

Association. Mr. James offered us some hope of a Bill going through on those lines. Mr. James referred to my Association's speech just now. He referred to the fact that some injustice had been done to the Government, but, I am afraid, I do not know exactly what Mr. James means on this point, as our representations were based on a letter from Mr. James.

Mr. F. E. James.—That is before I had an opportunity of seeing the files and of meeting the Revenue Member, the day before I came up he was good enough to show me the file in question and I quite accept the blame for my original letter, but I did want to put the matter straight as far as the Government is concerned.

Mr. R. Fowke.—I will just answer the final part of Mr. James's remarks. We have not solicited any assistance from the local representatives of the Madras Legislative Council nor has anybody yet ever proposed doing it.

The Secretary.—Might I explain a little more about it? When this matter was last taken up by the Association it was under Mr. Nicolls who knew far more about the subject than anybody else. The Government's letter referred to was unanswered as being unanswerable, but at that time he did obtain the support of the local ryots.

Mr. R. Fowke.—May I say one word? I would ask the permission of the delegate who made the speech to delete that paragraph in regard to the lack of action of the Government.

Mr. A. R. Innes.—Mr. Chairman, with your permission I would like that paragraph to be deleted.

Mr. F. E. James.—It may go on record that the Government did draft the Bill, but the latter part which imputes the blame to Government and which cannot be justified may be deleted.

OPEN MEETING.

The Chairman.—Well, Gentlemen, the resolution before the meeting is:

Proposed by Mr. A. R. Innes and seconded by Mr. R. N. W. Jodrell:—

"That the Madras Government be requested to introduce or facilitate the introduction of a Bill in the Legislative Council for the extension of the provisions of the Malabar Compensation for Tenants' Improvement Act, 1899, to the Gudalur Taluk of the Nilgiris and that the Planting Member be asked to make representations to that effect."

Those in favour? Those against?

The resolution is carried.

The "Planters' Chronicle."

The Chairman.—Gentlemen, we will now go on to the next item—the "Planters' Chronicle." All delegates have, I believe, the interesting statement regarding the Chronicle which Mr. James has prepared and which is enclosed in the file placed on the table.

There are two resolutions to be considered, but before taking up these for consideration, I propose to place Mr. James's statement before you for discussion. Will Mr. James tell us what he considers to be the most important proposals in his statement?

Mr. F. E. James.—The first point is the question of the period of publication, whether it should be a Weekly or a Fortnightly.

The second point is that some attempt has been made to make improvements in the Chronicle, but as I only had charge for a matter of about six months, it was impossible to effect all the improvements which, I think, are still necessary. I was tied down to the necessity of producing a certain minimum income, which is necessary for the payment

of the services of the Assistant Secretary, and until all the old contracts expired and the new advertisement contracts, on the new rates, had been taken up, it was impossible to launch into any considerable expenditure on the Chronicle, which any improvement must need.

The improvements that we have made are:—

- (1) A new cover.
- (2) An entire re-setting of type,—which means you get very much more on to a page, now, than you used to in the old days, and an entire re-setting of the Meteorological Section.
- (3) Grouping of all the District Association information together in one place with a smaller type.

Although the number of pages of reading matter has not very greatly increased during the period I have had control, there has been a very large increase in the actual amount of material for reading.

- (4) The fourth improvement, that I have attempted to make, is in connection with the re-distribution of articles and the attempt to get articles of an original nature. I think if you compare the past issues of the Chronicle with the present ones, you will find that during the last six months more original matter has appeared than has appeared at any other time during the existence of the Chronicle. (Hear, hear). As to whether the original matter, to which I refer, is matter which is enjoyed by planters is another point. It is very difficult for anybody to find out.

In regard to the future, I feel, there are still more improvements that can be made and I feel that under the

managership of Mr. Hill these improvements will be made. Some of them I have mentioned in my report.

A slight increase in size;
A better paper;
An advertisement index;

An improved cover design which will allow of two-coloured advertisements, which will give us increased income for the advertisements outside and inside the cover.

I see absolutely no reason why the "Planters' Chronicle" should not occupy a very much more important place in commercial centres, generally, in South India than it does to-day. It seems to me that with its assured circulation and the fact that it does cover the whole of South India, it has not only unique advertising facilities to offer, but it also ought to be able to draw on a great deal of planting and commercial experience in the South. My own idea of the Chronicle is, that it should, to some extent, at any rate, if not quite on as ambitious a scale, be to South India what papers like "Commerce" and "Capital" are to North India.

In connection with the question of policy and finance, I have proposed, in the penultimate paragraph of my report, that the Editor should have the assistance and advice of a Board of Advisers of three persons to whom monthly reports should be sent, both as regards expenditure and income, and who—say once a quarter—should either in person or by correspondence confer as to general policy in regard to this paper.

All these proposals, Gentlemen, are based upon the assumption that you want the Chronicle to be something more than merely a paper for the particular use of the Upasi. If it is simply to be a Paper which is used merely as a channel of communication for the Upasi members, then there is no particular need for improvement. But if you do want to make it more than that—and I see no reason why we should not—I suggest you adopt, at any rate, some of the suggestions I have made in my report.

The Chairman.—Gentlemen, Mr. James has made some very interesting remarks, and has made some very interesting suggestions, and I would just like to say now once more

that we are very much indebted to him for the trouble he has taken to improve the "Planters' Chronicle," ever since it was handed over to him. (Hear hear). Have members any questions to ask Mr. James? I would like to propose that the suggestions made by Mr. James for the further improvement of the "Planters' Chronicle" be carefully considered by the Executive Committee. Perhaps we had better postpone that suggestion until the Mysore Planters' resolution has been put to the meeting. Will the Mysore delegates propose the resolution standing in their names?

Mr. S. H. Dennis.—Mr. Chairman, I have a resolution here, on behalf of the Mysore Planters' Association, to move:—

"That the 'Planters' Chronicle' which has lately been run as a fortnightly paper revert to a weekly and that the 'personalia' column be re-introduced."

The Chairman.—Who seconds that resolution?

Mr. S. H. Dennis.—I have not a seconder and therefore may I ask your leave to withdraw the resolution?

The Chairman.—Certainly.

The resolution was, by leave, withdrawn.

Mr. E. G. Cameron.—I wish to move:—

"That the 'Planters' Chronicle' should allow a discount of five per cent. on all advertised rates for advertisements to members of the Upasi Buying Agency."

My Association feels aggrieved that the Upasi Buying Agency has not obtained any discount on the advertised rates in the "Planters' Chronicle," which is run for the benefit of the Planters.

Mr. G. McPherson.—I second it.

Mr. F. E. James.—Mr. Chairman, I do not want to influence the Association unnecessarily because I am no longer the Editor, but I would just like to put before you three points:—

(1) I want to suggest to you that the advertised rates, even now, are below what they ought to be.

(2) That the proposed reduction would be, in most cases, infinitesimal. The proposed reduction would amount on advertisements for a full page to 11 annas which, of course, is not an important reduction, on a half page it would be 5½ annas. If you take a contract for a year for a full page, it will cost you Rs. 408. We already give you a discount of 10 % which will reduce it to Rs. 368 and the proposal that the Buying Agency should have another discount of 5 per cent. will mean a further reduction of about Rs. 17½ on that total bill.

(3) The third point, which you should remember, is that some of the profits of the Buying Agency are being used to pay for the services of the Assistant Secretary in that connection. If you reduce the profits of the Chronicle, you would be doing so at the expense of the Buying Agency. In other words, you would be borrowing from Peter to pay Paul.

Those are the three points which you should consider.

The Chairman.—I should like to hear the views of the members on this question.

Mr. R. N. W. Jodrell.—Is not this a question of reciprocity? Should not we encourage the firms to give the Buying Agency a discount even if it is a small discount? If Mr. James says that the rates are too low, surely they should be increased and then the need for this preferential treatment would be greater.

Mr. F. E. James.—I would like a resolution at this meeting that the advertised rates be increased. But I am bound to tell you that I have no difficulty with most firms over the increases that we have made. If the meeting think that the rates should be increased, I would welcome that, but, at present, you are in danger, I think, of taking out of one pocket and putting it in another.

Mr. E. W. Fowke.—Does not Mr. James think that if the rates of advertisements are increased, we shall lose many advertisements?

The Chairman.—Mr. James thinks that we would not lose very much.

Mr. F. E. James.—It depends upon the increase you make and when you make it. We made an increase during the past year and in every case, except one, the firms that had been advertising, accepted the increase. We are very grateful to them indeed. We also obtained a large number of new advertisements from outside who are also paying at the increased rates. In any case, you cannot possibly further increase the rates for some time, for that would offend our constituents.

The Chairman.—Mr. Fowke, will you give us your views on this matter?

Mr. R. Fowke.—I have not considered the matter carefully, but it seems it will be a great pity to adopt this principle of rebate to the members of the Buying Agency. I should like to ask how many members of the Buying Agency are now advertising in the "Chronicle"?

The Chairman.—So far as I know Mr. Fowke, there is only one at present.

Mr. E. G. Cameron.—Would not a discount induce others to advertise?

The Chairman.—Well, Mr. Cameron, I do not know, but I think that the advertised rates in the "Planters' Chronicle" are so low that they are very reasonable at present and. I think, they are sufficiently attractive to advertisers. I do not think we want to make them any lower.

The Chairman.—Well, Gentlemen, has any delegate anything to say on this resolution? If not, I will put it to the meeting.

Proposed by Mr. E. G. Cameron and seconded by Mr. G. McPherson:—

"That the 'Planters' Chronicle' should allow a discount of five per cent. on all advertised rates for advertisements to members of the Upasi Buying Agency."

Those in favour of it? Those against?

The resolution is LOST.

The Chairman.—Well, Gentlemen, does any member wish to say anything on the question of the "Planters' Chronicle" and as to how it can be improved?

Mr. P. F. C. Jourdain.—There is one small point which I should like to put forward. I think it would be very much better if the members of the Upasi, who order goods as the direct result of seeing an advertisement, would mention the Paper when placing an order. That would induce firms to advertise more or less according to the number of orders they get.

The Chairman.—Mr. Jourdain, I would ask Mr. Hill to make a note of that. Would you like to move a resolution?

Mr. P. F. C. Jourdain.—I do not think it is necessary.

The Secretary.—In future the Paper might contain the words: "Please quote this Paper." I think that would meet the case.

Mr. P. F. C. Jourdain.—If you put it on the first page and state that when placing orders please mention this paper, it will do.

The Chairman.—Well, Gentlemen, I would like to propose from the Chair:—

"That the suggestions made by Mr. James in his statement regarding the 'Planters' Chronicle' be considered by the Executive Committee."

Those in favour of it? Those against?

The resolution is carried.

Captain E. H. A. Travers-Drapes.—Mr. Chairman, I just want to say a few words as regards the Mysore Planters' first resolution. I think it is the wish of every one that the "Planters' Chronicle" shall eventually revert to a Weekly, but we desire to leave the thing at present in the hands of those who are more expert in the matter, but I would suggest that this point might be kept in view,

Mr. S. H. Dennis.—If the "Planters' Chronicle" is made a Weekly publication, would not the income from the advertisements be more?

Mr. F. E. James.—No; because one page in the fortnightly is more expensive than one page in the weekly, other things being equal. I think I have explained that in my report. The point is that one page in a fortnightly is worth more than a page in a weekly. The supposition is that a fortnightly lies about a place more than a weekly and therefore the advertisement is more likely to catch the reader's eye. (Laughter).

The Secretary.—But does not that mean in the end, Mr. James, that the paper loses taking the whole year's account?

Mr. F. E. James.—The paper may lose a certain amount, but it also means that you halve your cost of production. It costs less to publish twice than to publish four times. Most of the advertisements are still under the old rates. We are making more money than was made last year when the "Chronicle" was a weekly paper.

The Chairman.—Mr. Travers-Drapes, as to the suggestion to make the "Planters' Chronicle" a weekly publication, we will leave that matter to be considered by the Executive Committee.

Captain E. H. A. Travers-Drapes.—Thanks, that is all right.

Upasi Sports Club.

The Chairman.—Gentlemen, with your permission, I will ask Mr. Fulcher to bring up the item of the Upasi Sports Club.

Mr. G. W. Fulcher.—Mr. Chairman, in the absence of any members of the Sports Club Committee, here, to-day, I have been asked to represent them. There are certain matters which they wish to be brought forward at this meeting. I regret to say that the Club has come to such a state that it is almost impossible to run it. I have got very good

reasons to ask this meeting to close the Sports Club down either temporarily or for good. It is a most unpleasant duty for me to ask the meeting to do so, especially after the hard work that I have been doing for it for the last eight years. The meeting last February was so badly attended that our funds got into rather a bad condition. The Committee have got proposals for effecting savings, but I do not know whether it is worth considering them. The Club is being killed by the Local District Clubs which are increasing, enlarging and playing more forms of sports. When a Circular is sent round to the District representatives, no replies are received for three months or for more than three months. I would like to say that, although the next meeting has been proposed for next February, the Anamalais delegates have instructions to say that they do not wish to play more Rugger at the elevation of the Ootacamund hills. You can see from that, Mr. Chairman, that it kills any hope of a successful meeting being organized. I would, therefore, ask you, Mr. Chairman, to allow the meeting to discuss the question as to whether it is worth continuing the Sports Club or not.

The Chairman.—I would like to hear the views of the delegates generally.

Mr. W. H. Martin.—Mr. Chairman, we have received the following telegram and letter as a result of the meeting of the Anamalais Planters' Sports Club:—

"Please bring before meeting Anamalais propose Planters' Rugger Tournament be played at Madras, prior to Madras Rugger Tournament."

"As matters are at present, the Anamalais feel that the Planters' Tournament is played at the most unsuitable time of the year for Rugger, and as practising and the actual games are played on hard grounds accidents are frequent.

"If the Tournament was played just previous to the Madras Rugger Tournament at Madras, a really representative Planters' Team could be chosen for the Madras Week.

"The Anamalais will await with interest the decision of the meeting in regard to the above proposal."

The Anamalais wish to play Rugger in August, September and October—these months being considered the most suitable months for Rugger. They also prefer to take part in District meetings such as probably most of you know were held last week. I understand Wellington was sending a Team up last Saturday. The Anamalais wish that the Tournament should be played in Madras, the idea being that most of the inter-provincial matches are played there, and that the players would receive more encouragement there. They also object to play in Ootacamund, as they have a feeling that the Ootacamund, or rather the Wellington ground was selected for the benefit of the spectators, and that the convenience of the players was not taken into consideration, all of whom felt the strain of playing at that elevation.

Mr. S. H. Dennis.—It seems to me that possibly Bangalore would be a better place to hold a meeting in the monsoon months.

IN COMMITTEE.

The Chairman.—Does the Anamalais Association wish that the Sports Club should be closed down?

Mr. W. H. Martin.—The Anamalais Association have no wish to close down the Upasi Sports Club. What they wish is that the Rugger should be played at a better centre and at a more suitable time of the year.

Mr. G. W. Fulcher.—I am not now speaking on behalf of the Committee, but I should like to say myself, from what experience I have had of the Sports Club, that I do not think it is needed in many districts. I do not think they want it and we shall never get the support necessary to run it as a big United Club. In view of this fact, I would like you to consider whether it is worth wasting the time of this meeting, by adducing the same arguments, as we have been having every year. Is the Club needed? I say it is not. There are only three Rugger Districts. The others are not Rugger Districts. That is all. Is it worth continuing it for the sake of three districts out of thirteen? I doubt it.

Mr. A. E. J. Nicolls.—I should like to say, on behalf of our Association, that when the Upasi Sports Club was started, we felt inclined to support it as much as we could, but, unfortunately, it never seemed possible to find a time that suited our people. When we did go up, we found a Rugger Team from Coorg and that was the only occasion when we could possibly support it. We have suggested other dates and other places. If they could have had a meeting at those times we should certainly have supported it, but so long as it is held at a time and place which is not convenient to us, we cannot support it.

Mr. G. W. Fulcher.—I should like to exclude Coorg from my remarks made just now, because they have done their best to support us.

Mr. P. F. C. Jourdain.—As a life member of the Upasi Sports Club, I had the occasion and honour of captaining a West Coast Cricket Team, last year, and we are very sorry indeed to hear of this state of affairs. On the other hand we do realize the great difficulty, that the members of the Upasi have in finding a convenient time, and on behalf of the West Coast, I should like to say that we will endeavour to fix a match at any time and at any place.

The Chairman.—I thank you very much Mr. Jourdain, I do not think we can discuss details as to where Rugger should be played. We want the opinion of the meeting as to whether the Sports Club should be continued.

Mr. G. W. Fulcher.—With regard to the holding of the meeting at Ootacamund, I think I am right in saying that we took over half an hour to elect a committee. We cannot get the men for it. Our President, since the last Annual Meeting, has had to resign, owing to his having taken leave, and our Secretary, I am sorry to say, has put in his resignation from the 1st of September for lack of support.

The Secretary.—Mr. Fulcher, do you want to go as far as winding up the Sports Club rather than suspending it for a time?

Mr. G. W. Fulcher.—If we are never going to get the necessary support, it is better to wind up the Sports Club altogether, or, at least, close it down for one year.

Mr. R. N. W. Jodrell.—I think the suggestion of having a meeting at Bangalore was made sometime ago, but the trouble was with regard to finding suitable grounds for Tennis and Rugger.

The Chairman.—The Secretary tells me that it was proposed to hold the meeting at Bangalore once and that no acceptances were received. The venue of the meeting was then changed to Ootacamund. I do not quite understand why Ootacamund is not convenient to some Associations?

Mr. S. H. Dennis.—February is a very busy month for Coffee. March is very much the same. During these months we are very busy and we are entirely tied down to the Estates.

Mr. R. N. W. Jodrell.—It appears to me that the main attraction of the annual meeting, is Rugger and the whole thing seems to hinge on the venue of the Rugger matches. If a place is selected, where the elevation is suitable, then we could doubtless arrange and hold the meeting there, but it strikes me that the first thing to decide is where a suitable place could be found on which a Rugger match could be played. If the Rugger Match was not held at Ootacamund, the meet there is bound to be a failure.

Mr. G. W. Fulcher.—The Anamalais suggestion to encourage the District Sports Clubs is, I think, a very good one and, I think, the Districts can visit each other officially and play various games. That would be far better than running a big Club which we find it hard to do. They are trying to have Inter District Sports. I think Inter District Sports are far better than the annual meeting, which we find impossible to work.

The Secretary.—Would that mean that the old Inter District Tennis Competition would go with it. The old Tennis Tournament is very much older than the Upasi Sports Club and I suppose there is some active person who would like to take the trouble of working that up. That might still continue even if the Sports Club has to go.

Mr. G. W. Fulcher.—That contest is the "Upasi" affair and not the "Sports Club's."

The Secretary.—Mr. Fulcher you talk about the Inter District Sports Tournament, but we had not the money to purchase cups.

The Chairman.—Mr. Fulcher will you propose a resolution: "That this Meeting recommends that the Sports Club be suspended for one year?"

Mr. W. H. Martin.—All our instructions are on the subject of Rugger. We have no instructions on the subject of other branches of sports.

Mr. G. W. Fulcher.—If we close it down for one year, we shall have this discussion again next year. I personally really think that it is better to close down the Sports Club altogether. As you know we are not able to get the things which are wanted, and so it is no use continuing the Club. If it is closed down for one year, the delegates will then know that it could be re-opened if they wish to do so. If in future support is forthcoming, we can ask for the Sports Club to be re-opened. I think we will lose nothing by suspending the activities of the Club for one year.

Mr. H. C. Boyd.—If it is a matter of closing down the Sports Club, it should be referred back to the District Associations.

Mr. W. H. Martin.—I have a proposal to make. I propose that the Upasi Sports Club be suspended for one year and that the question of continuing the Club should be discussed at the next annual meeting. This will mean that the next February meeting will have to be washed out. The members and visitors may then feel the need for it and may voluntarily ask for it to be re-opened.

The Chairman.—If you propose a resolution to suspend the work of the Upasi Sports Club for one year, it gives an opportunity to the District Associations to consider the matter.

Mr. R. N. W. Jodrell.—Cannot the Sports Club themselves decide to postpone their activities for one year? If

this question is referred back to the District Associations, the Sports Club may get the assistance which they require.

The Secretary.—Is not Mr. Fulcher the spokesman of the Sports Club?

Mr. G. W. Fulcher.—I made it clear that I was not speaking on their behalf.

OPEN MEETING.

The Chairman.—It is proposed by Mr. W. H. Martin and seconded by Mr. C. L. Greig:—

“That the Upasi Sports Club be suspended for one year and the question of continuing should be considered next year and that the matter be referred to the District Associations.”

Mr. H. C. Boyd.—I beg to move the following amendment:—

“That the question of discontinuing the Sports Club be referred back to District Associations and their decision be communicated to the Executive Committee who shall act accordingly.”

Mr. R. N. W. Jodrell.—I second it.

Those who are in favour of it? Those against?

The amendment is carried.

Mr. G. W. Fulcher.—Meanwhile what are we going to do?

The Chairman.—If you have not got a Committee what will you do?

Mr. G. W. Fulcher.—I think we have carried the wrong amendment. The Anamalais resolution was far better.

The Chairman.—The amendment has been carried Mr. Fulcher. Would not it do if Mr. Hill is instructed to try and arrange a Rugger Tournament?

Mr. H. C. Boyd.—I understand the committee members have all resigned, owing to lack of support. In view of this amendment which has just been passed, do not you think

that the committee might re-consider their resignations until they get the views of the District Associations?

The Chairman.—I take it that the Sports Club will cease to function. At the same time, there is no harm in getting the opinion of the District Associations and carry on again.

The Secretary.—We have no time to do that. I think you should add to the amendment:—

“And that in the meantime the activities of the Club be suspended.”

That will get us out of the difficulty.

Regarding the team going down to Madras—if an Association is going to send it down to Madras, they can do so, but it will not be a Upasi Team.

Mr. H. C. Boyd.—I am quite willing to accept that Mr. Chairman.

The Chairman.—Will the meeting go back to that amendment and accept this.

Mr. Fulcher, is there any objection to letting Mr. Hill organize the Tournament in Madras? Is there a special Tournament Secretary? Could not we let him know so that he could approach the Associations individually with regard to getting a Rugger Team down?

Mr. G. W. Fulcher.—There is no difficulty in getting a Rugger Team, but we want to know whether it is to be a Upasi one?

The Chairman.—Under the present circumstances, it could no longer be a Upasi Team, could it?

Mr. G. W. Fulcher.—Not if the Club is suspended.

The Chairman.—I will just put this amended amendment to the meeting once more.

Proposed by Mr. H. C. Boyd and seconded by Mr. R. N. W. Jodrell:—

“That the question of discontinuing the Sports Club be referred back to District Associations and their

decision be communicated to the Executive Committee who shall act accordingly and that in the meantime the activities of the Club be suspended."

Those who are in favour of it? Those against?

The amendment is carried.

The Secretary.—Mr. Chairman and Gentlemen, in this connection I think we had better wait till the Book of Proceedings is printed before this question is referred to the District Associations. They must see this debate before understanding what has been agreed to here. It will mean a question of five weeks.

Mr. G. W. Fulcher.—Could you not have this debate circulated before the Book of Proceedings is printed?

The Secretary.—I will try to do so.

The Chairman.—Gentlemen, is there anything else under Sports Club which delegates would like to speak about?

Before we close this subject, I may say that we all know how much Mr. Fulcher has done for the Upasi Sports Club. (Applause).

With regard to the business this afternoon, a good many members have asked that there should be no session this afternoon, in view of the Races, and, I think, we gave the Race Club to understand that we would leave the Thursday afternoon free. I would like to know if the meeting approves of there being no afternoon session to-day.

Those in favour of it? Those against?

Carried.

The Chairman.—Gentlemen, we will now adjourn till to-morrow morning 10 o'clock.



Fifth Day Friday, 22nd August 1930.

(MORNING SESSION).

Harbours.

The Chairman.—Gentlemen, the special meeting of the Southern India Planters' Benevolent Fund which was to have been held yesterday afternoon, will be held at the close of this meeting.

We will now take up the Agenda. The subject for discussion before you is "Harbours." Mr. Jourdain, could you tell us anything about the Cochin Harbour?

IN COMMITTEE.

Mr. P. F. C. Jourdain.—Mr. Chairman and Gentlemen, I have not a great deal to tell you about the Cochin Harbour, but if you have no objection, I will ask the permission of the Chairman to allow me to speak in Committee.

Last year Mr. Grant told you, that we had laid down the first of the eleven permanent mooring buoys in position. We now have ten, and I expect when I get back to find the eleventh buoy ready. This means that the Harbour is now thoroughly established. All the work goes on inside the Harbour. We have had, I think, twice or three times during this monsoon, every buoy occupied and steamers waiting outside for a berth. I think that shows that the Harbour is really established now.

Another small point of interest is that within the last four months, we have collected more than fifty per cent. of the estimated pilotage for the year. That shows that the number of steamers using the Harbour are very much more than was anticipated in the Budget. On the other hand, although we have had many more steamers, the actual collection of landing and shipping dues, is below our estimate, and that is because the steamers, that come, do not get the required cargo, trade being so bad.

Well, Gentlemen, I may tell you what our present work is. We are at present engaged on making a turning basin

for steamers. I would explain that in Cochin we are actually anchoring steamers by bow anchors only. In Colombo, as you know, steamers always anchor fore and aft, but Colombo has smooth waters and the tides and the currents are not great in strength and they have restricted room. In Cochin we have ample room and in addition to that a very strong tide would make it an extremely lengthy proceeding to moor a steamer fore and aft. At present steamers enter the port on the ebb tide and go out on the flood tide, that is to say, they swing to the tide and then they are taken in or out. This has been found to cause a certain amount of delay to steamers, and we are at present engaged in dredging out a turning basin inside the Harbour, so that the steamers can be turned round inside the Harbour and come down with any sort of tide. We are also trying to obtain a powerful tug to assist in turning steamers.

As regards the future programme, Mr. Grant told you. I think, that the Government were, very shortly, going to call a meeting of interested parties to discuss the future work of the Cochin Harbour. That very near future has not yet come. They are still going to call this meeting. The delay is chiefly, I think, due to the fact that the Government have been waiting for the new European Dewan of Cochin to arrive. He is due next month and when I asked Mr. Cater, last night, he said he would have the meeting fairly soon after that, but he thought it would be a good thing to give the new Dewan time to settle down, and I entirely agree with him. So that I think we can say that, within the next three months or so, that meeting of interested parties, will be held and that we shall then decide on the future programme of the Cochin Harbour.

Now as regards the programme, the Government, or rather some of the Government officials, are anxious to go ahead with the Wharves, Sheds and Railways along the Reclamation ground, and they say it is due to want of these that more bigger steamers do not come into the port, and on account of which the trade of Cochin is suffering. That is not the opinion of the Commercial Community. Our opinion is that, now that we have got steamers anchoring inside the Harbour, and work can go on all the year round—we are

satisfied with that, for the time being. We do not want to saddle ourselves with such very heavy overhead expenses, because by so doing we shall be driving trade away instead of encouraging it.

The chief requirements now as regards the Port are improvement in the railway service. There are two proposals before the Cochin Government. As you know the British Government will not spend money on railways in the Indian States. The Cochin Government, I believe, are most keenly interested in the connection of the Pollachi-Palghat section of the line with Trichur through Kollengode. There are many different opinions as to whether it would not be better, in the first place, that there should be a Broad Gauge line between Shoranur and Ernakulam. The Cochin Chamber of Commerce have all along urged that the Broad Gauge proposal should come first, and that the Metre Gauge proposal should come afterwards and the Cochin Harbour should be served by two systems of railway. Personally—I am speaking absolutely personally—I am rather for the other proposal. I think that possibly the Harbour will be benefited more with the Metre Gauge connection, if we cannot get both. I hope we shall get both. I hope, therefore, that when this Conference takes place, Gentlemen, we shall know exactly what the intentions of the Cochin Government are.

The Port Conservancy Board is restricting its activities to merely improving the facilities of working the Harbour as we have it to-day. The improvements are as I just said:—

A turning basin, a very powerful tug, in addition to this, we hope to remove two of the outer berths, which are not altogether satisfactory, and to put down two berths further inside.

We wish, as soon as we can to light the Channel, so that steamers can come in and go out at night. At present we only bring steamers in or take them out by day.

In addition to this, we are now considering the improvement of the Cochin Light House and better communication between steamers and shore. That is only a minor detail.

I do not think I have anything more to say, but if anyone has any questions to ask me about the Harbour, I will try to answer them. (Applause).

The Chairman.—Gentlemen, I would like to thank Mr. Jourdain, on your behalf, for giving such full and interesting information about the Cochin Harbour. Does any member wish to ask Mr. Jourdain any questions?

OPEN MEETING.

Railways.

The Chairman.—The next item is "Railways." Has any delegate anything to say with regard to this matter?

Mr. T. Davenport.—I have a resolution to move of which I have given no notice.

The Chairman.—Will the meeting permit Mr. Davenport to move his resolution?

Those in favour of it? Those against?

Carried.

Mr. Davenport will please move his resolution.

Mr. T. Davenport.—I beg to move the following resolution:—

"That in view of the importance of the proposed railway from Pollachi to Vananthurai to the Planting and Agricultural interests of the district, the Government of India be requested to provide the necessary funds in the next Budget of the Railway Board so that the construction may be taken in hand without undue further delay."

In support of this resolution, Mr. Chairman, I may say that this proposed railway is not a new proposal. The surveys are already complete and it is viewed very favourably by the Government. The point that we want to make is that the construction should be proceeded with at once. It has been proved that it is a sound commercial proposition. but our opinion is that the construction may not be undertaken for some time. This proposed railway is only 13 miles in length, and it would pass through a very fertile stretch of country, which produces large crops of ground-nuts and other things—all of which find their way to the

market, either in or through Pollachi, so that this railway will not only be of importance to the Anamallais area but also to the Agricultural areas in the plains.

Mr. A. J. Wright.—I second that resolution.

The Chairman.—Has any member anything to say on this resolution?

The Secretary.—I think it quite wise to pass this resolution, although, I take it, we can have little hope that it will be started before 1932. The Railway Board issued a Notification, as I have mentioned in the Report, that they will not undertake any new schemes until 1932.

The Chairman.—Has any other member any point to bring up with regard to this matter? Well, then, the resolution proposed by Mr. T. Davenport and seconded by Mr. A. J. Wright reads as follows:—

"That in view of the importance of the proposed railway from Pollachi to Vananthurai to the Planting and Agricultural interests of the district, the Government of India be requested to provide the necessary funds in the next Budget of the Railway Board so that the construction may be taken in hand without undue further delay."

Those in favour of it? Those against?

The resolution is carried.

The Chairman.—Is there any other matter under "Railways" on which anyone would like to speak? If not, we will now go on to "Roads."

Roads.

The Chairman.—Mr. Cameron, you had a resolution to move.

Mr. E. G. Cameron.—I wish to withdraw that resolution. From information since received we understand that the work is going to be pushed through satisfactorily—therefore there is no use bringing forward a resolution now.

The Secretary.—Do you wish that the resolution should not be printed in the Report?

Mr. E. G. Cameron.—It need not be printed in the Report.

Mr. H. Clarke.—Mr. Chairman, we have not framed a resolution, but with the permission of this meeting, I should like to bring forward one.

The Chairman.—I think the meeting agrees to that.

Mr. H. Clarke.—I beg to move:—

“That this Association presses on the Government of Madras that the Kuruvannur-Kodaikanal Road Station Road be retained as a trunk road and that it is not allowed to revert back to the Madura District Board, and if that is not possible, to allow a further annual grant to the District Board.”

The Chairman.—Who seconds that resolution?

Mr. O. J. Egan Weyer.—I second it.

Mr. H. Clarke.—The Government undertook to thoroughly repair the road. Up to the present the whole road has been completed, with the exception of a few miles, and this will be completed by January. We understand that this road is going to be handed over to the District Board of Madura which we want to prevent, as they do not, and they have not got the means, to keep this road under thorough repair. Mr. James brought this matter up in the Legislative Council and I understand that he was also told that this road would be handed back to the District Board. I therefore, move this resolution.

The Chairman.—Mr. Egan-Wyer, do you wish to say anything?

Mr. O. J. Egan-Wyer.—I have nothing to add to what Mr. Clarke has already said.

The Chairman.—It has been proposed by Mr. H. Clarke and seconded by Mr. O. J. Egan-Wyer :—

“That this Association presses on the Government of Madras that the Kuruvanuth-Kodaikanal Road Station Road be retained as a trunk road and that it is not allowed to revert back to the Madura District Board, and if that is not possible, to allow a further annual grant to the District Board.”

IN COMMITTEE.

The Secretary.—Mr. Clarke, I think there will be some difficulty in persuading the Government to make it a trunk road if you propose to bring it to a dead end at Mundakayam. I think we shall have to put in argument stating that the trunk road will be from Madras to the capital of the Travancore State—if that is correct. I do not know your local conditions sufficiently to say whether that is right or wrong, but it is little use putting forward a case for a trunk road if it ends in nothing.

Mr. H. Clarke.—It goes right down to Trivandrum.

The Secretary.—In making any representation, if we mention this fact, it should assist us greatly.

The Chairman.—Mr. Clarke, would you mind omitting the last part of the resolution: “And if that is not possible to allow a further annual grant to the District Board.” That would weaken our request.

Mr. H. Clarke.—I agree to delete that clause.

Mr. O. J. Egan-Wyer.—I also agree.

The Chairman.—Has any other member anything to say on the question of this road?

Mr. H. Clarke.—Mr. Chairman, I am very sorry to ask you to alter this resolution a little further. We may say :—

“That this Association urges on the Government of Madras that the Kuruvanuth-Kodaikanal Road Station Road be made a trunk road, etc.”

This alteration is necessary because at present it is not a trunk road.

OPEN MEETING.

The Chairman.—The resolution will then read as follows:—

"That this Association urges on the Government of Madras that the Kuruvannuth-Kodaikanal Road Station Road be made a trunk road and that it is not allowed to revert back to the Madura District Board."

Those who are in favour of it? Those against?

The resolution is carried.

The Chairman.—Is there any other item under "Roads"?

Mr. R. N. W. Jodrell.—Mr. Chairman, I have a similar resolution to bring forward from our district which, I hope, Mr. Fowke will second:—

"That this Association do approach the Madras Government with the following request that all roads passing through the Malabar-Wynaad now under the control of the P.W.D., do continue so to remain, and that they do not revert to the District Board for future maintenance."

Some time last year, I think it was, Government decided that certain sections of the road in the Malabar-Wynaad, owing to their deplorable condition, should be taken over by the P.W.D. for the purpose of putting them into first class order. The question of the future upkeep of the road will be decided after they are put into first class order. The work has already commenced and, I am told that, it will be complete early in 1932, when it is doubtful as to which authority will keep the road up. We only wish to press that this road does not revert to the District Board Authorities, but is maintained in future by the P.W.D. The road, under the District Board Authorities, has never been satisfactory, and has never been put into first class order, and we do not wish it to revert to its previous deplorable state.

Mr. R. Fowke.—I have much pleasure in seconding this resolution. Anyone who has had the misfortune to go along this road, I am certain will support this resolution that the P.W.D. continue to maintain the road after its repair.

The Chairman.—Has any other delegate anything to say about this road? Gentlemen, in this connection, I do not know whether it is worth while instructing the Secretary to make enquiries as to whether it would be possible for a loan to be raised for the improvement of roads in the Madras Presidency? The extra petrol tax, that Madras gets from that, is Rs. 12½ lakhs and it was suggested, at the Motor Association Dinner in Calcutta, six months ago, that the petrol tax should be used to pay the interest on a loan. Well, if they could raise a loan they would have a sum of Rs. 12½ lakhs available. Is it the opinion of the meeting that enquiries might be made by the Secretary—and perhaps by the Planting Member—as to this? It could be done in connection with these two resolutions.

Mr. R. Fowke.—Mr. Chairman, I think I am correct in saying that a certain amount of money has been allocated or ear-marked from this. I think in the Nilgiri District we are to be given a sum of about Rs. 3 lakhs, for the maintenance of roads, but, I think, the mover of the resolution wishes that not only should the road be made now, but that it should remain under the P.W.D. to ensure good maintenance in the future. I think that is the idea of moving that resolution.

The Chairman.—Well, Gentlemen, if no member has anything further to say about this resolution, I will put it to the meeting.

Proposed by Mr. R. N. W. Jodrell and seconded by Mr. R. Fowke:—

“That this Association do approach the Madras Government with the following request that all roads passing through the Malabar-Wynaad now under the control of the P.W.D., do continue so to remain, and that they do not revert to the District Board for future maintenance.”

Those in favour? Those against?

The resolution is carried.

The Chairman.—Is there any other matter under “Roads”?

Mr. R. Fowke.—Mr. Chairman, with your permission, I will move another resolution:—

“That representations be made to the Government of Madras to take over from the Nilgiri District Board the main road from the Choladi Bridge to Ootacamund and place same under the control of the P.W.D.”

Mr. Jodrell has very kindly consented to second this resolution. I think anyone concerned with this road in question, that is the main road between the Malabar boundary and Ootacamund, within the last few months, will realize that the amount of money spent on this road does not permit of its being maintained in good order. The traffic has increased and unless something is done, the road will be absolutely unusable. No metal has been laid or collected this season, and it seems to me that the only thing we can do to get an improvement is to approach the Government with the request that the P.W.D. take over the road.

I would ask you, Gentlemen, to support my resolution.

The Chairman.—Has any member anything to say with regard to this matter?

Mr. R. N. W. Jodrell.—I second this resolution. I would like to emphasise the fact that this road is in such a dangerous condition that accidents are likely to occur at any moment. I hope the Government will give this matter their serious consideration.

The Chairman.—If no delegate has anything further to say about this, I will put the resolution to the meeting.

Proposed by Mr. R. Fowke and seconded by Mr. R. N. W. Jodrell:—

“That representations be made to the Government of Madras to take over from the Nilgiri District Board the main road from the Choladi Bridge to Ootacamund and place same under the control of the P.W.D.”

Those in favour of it? Those against?

The resolution is carried.

The Chairman.—Is there any member wishing to say anything else under Roads? If not, we will go on to the next item—"Posts and Telegraphs."

Posts and Telegraphs.

The Chairman.—The Nilgiri-Wynaad Association had asked that this item should be included in the Agenda, and they informed the Secretary that a resolution would be sent in later, but this was not done. Do the Nilgiri-Wynaad delegates wish to bring forward any resolution in this connection?

Mr. A. R. Innes.—We would like, with your permission, to withdraw the resolution which we have prepared.

The Chairman.—Gentlemen, under this item the Mysore Planters' Association have a resolution to move.

Mr. S. H. Dennis.—I beg to move the following resolution which Mr. Nicolls has kindly consented to second:—

"A. That the Postmaster-General be requested to make the Santaveri Post Office a sub-office of Chikmagalur;

"B. And also be requested to arrange for the establishment of a mail service by Bus between Chikmagalur and Santaveri."

In support of the resolution, I would like to say that the distance between Santaveri-Chikmagalur and Santaveri-Tarikere is approximately the same, regular Bus services run between these two Towns, the change should involve no extra cost, it would expedite postal communication with Mangalore (the Coffee port) by two or three days, as letters would be sent direct from Chikmagalur to Mangalore by bus instead of as at present, *via* Bangalore and Jalarpet. My Association considers the reasons given by the Superintendent of Post Offices in Mysore for not making the change unsatisfactory, (1) the few number of letters between Chikmagalur and Santaveri, it is with the Coast communications are important, not Chikmagalur, (2) until more important postal routes are established, this plainly shows how little thought is given by the Postal Authorities to postal communications in the Kadur District.

Mr. A. E. J. Nicolls.—I second it.

The Chairman.—Has any Delegate anything to say regarding this resolution?

IN COMMITTEE.

The Secretary.—Mr. Dennis, does not a letter posted at Chikmagalur reach Malabar the next afternoon?

Mr. S. H. Dennis.—No; I do not think so, it takes three days, it has to go *via* Kadur-Bangalore and Jalarpet.

The Secretary.—That would take two days. If it reaches in two days, how would you save two or three days by the new route?

Mr. S. H. Dennis.—By the new route it would take one day.

The Secretary.—Well, that would save only one day.

Mr. S. H. Dennis.—It takes three days if a letter is posted in Santaveri, from Santaveri to Bangalore one day, the letter lies in Bangalore all one day. Then goes on by the night mail from Bangalore to the West Coast, arrives in Mangalore on the evening of the third day, to be probably delivered on the morning of the 4th day, that is three days.

OPEN MEETING.

The Chairman.—Gentlemen, the resolution before the meeting proposed by Mr. S. H. Dennis and seconded by Mr. A. E. J. Nicolls is:—

"A. That the Postmaster-General be requested to make the Santaveri Post Office a sub-office of Chikmagalur;

"B. And also be requested to arrange for the establishment of a mail service by Bus between Chikmagalur and Santaveri."

Those in favour of it? Those against?

The resolution is carried.

The Chairman.—Is there anything else under Posts and Telegraphs? If not, we will go on to item No. 32, that is "Tea."

Tea.

The Chairman.—I think the Mundakayam Planters' Association has a resolution to move.

Mr. O. J. Egan-Wyer.—May I alter the resolution so as to embody it under Rubber?

The Chairman.—Yes. Is there any other matter under Tea? If not, we will go on to the next item.

Coffee.

The Chairman.—Is there anything under Coffee? We will now go on to item No. 34.

Rubber.

Mr. O. J. Egan-Wyer.—Mr. Chairman, I beg to move the following resolution:—

"That this meeting unanimously adopts the conclusions of the Anglo-Dutch Rubber Restriction Liason Committee."

The Chairman.—Mr. Egan-Wyer, will you please speak to the resolution?

Mr. O. J. Egan-Wyer.—It is entirely unnecessary for me to do so.

Mr. H. J. Walmsley.—I second the resolution.

The Chairman.—If no one has anything to say, I will put the resolution to the meeting:—

"That this meeting unanimously adopts the conclusions of the Anglo-Dutch Rubber Restriction Liason Committee."

Those in favour of it? Those against?

The resolution is carried.

Freight Rates.

The Chairman.—Is there anything else under Rubber restriction? Mr. Egan-Wyer, will you please move your resolution with regard to the freight rates?

Mr. O. J. Egan-Wyer.—I move the following resolution:—

“That the U.P.A.S.I. be asked to approach the Chambers of Commerce and the Shipping Lines trading between the West Coast and the United Kingdom as to the possibility of obtaining further reductions on the freights of Rubber.”

I am sorry, Sir, I cannot say much in support of this resolution as unfortunately the figures, I expected, have not yet arrived. It is a well-known fact that certainly in Colombo and Madras the freights are cheaper, and now Colombo is giving a further reduction. This does not apply to the West Coast. Practically everybody on our side of the country ships from the West Coast and we must urge shipping companies to give us a reduction. I propose to give you facts and figures before you approach the Chambers of Commerce.

Mr. R. Fowke.—Can Tea, Coffee and Cardamoms be added on to this resolution?

The Chairman.—Yes.

The Secretary.—My attention was first drawn to the difference between the freight rates from Colombo and the freight rates from the West Coast by the Annual Report of the South Indian Association in London. There it was stated that the freight to the United Kingdom was 57s. 6d. as against the 65 shilling, quoted in the Price Current of the Cochin Chamber of Commerce for July. I made representations to the South Indian Association in London as regards Rubber only, asking them to obtain us rates similar to Colombo. I took the precaution however just before coming to Bangalore to wire to Cochin asking them what the rate was and find that it is the same as Colombo—57s. 6d.

Mr. P. F. C. Jourdain.—The freight rate on Rubber was reduced to 56 shillings from the 27th of March.

The Secretary.—I take it that what you want is to ask that the freight rates be still further reduced.

Mr. P. F. C. Jourdain.—Mr. Chairman, I have been asked to speak a few words on this resolution on behalf of the Conference Line. This line of steamers has been plying on the West Coast for many years. Previously when times were good there was probably ample freight, but they wanted to enter into a contract with the West Coast to supply the necessary regular tonnage. I think, I can say, that ever since the war they have been supplying very regular tonnage. At the present time the whole world is suffering from depression. They have still on contract the same steamers for the West Coast and they send them there and they take up other Port Routes while going home—so that they are not running at a profit both ways. When freights are really good, they have to supply a tonnage from the West Coast at a lower rate than what they would have got elsewhere. Now the times are bad. They have reduced the rates, but they go half load. I should like to say that the policy of this shipping line has always been to endeavour to keep medium freight rates for Planters. The freight on Rubber from Malabar has been reduced from the 27th of March on representation that the Colombo rates were reduced. I do not say that if any agitation for reduction is made, no attention will be paid to it, but it is a matter of fact that Tea from the Malabar Coast is being carried at five shillings less than from Colombo.

I have nothing more to say, except that we would be pleased to forward any representation to our address either by letter or by resolution—whichever you wish us to do to the Steamship Company. At the same time, I do wish to emphasise that the Shipping Company is suffering from under-freight at the present moment. (Applause). Gentlemen, I am not speaking here as a Steamer Agent. My firm wrote to the Agents pointing out that the freight rate on Rubber from Cochin to Bombay was Rs. 32 per ton of 40 c.ft. It was more expensive to send from Cochin to Bombay, than it was to send from Cochin to London. The same thing can be said about Calcutta. I am very glad to tell you that as a result of our representation we got those rates reduced

from Rs. 32 to Rs. 20 and from Rs. 40 to 29 respectively. (Applause).

The Chairman.—Has anyone else anything to say on this question? If not, I will put the resolution to the meeting.

Proposed by Mr. O. J. Egan-Wyer and seconded by Mr. R. N. W. Jodrell:—

"That the U.P.A.S.I. be asked to approach the Chambers of Commerce and the Shipping Lines trading between the West Coast and the United Kingdom as to the possibility of obtaining further reductions on the freights of Tea, Rubber, Coffee and Cardamoms."

Those in favour of it? Those against?

The resolution is carried.

The Chairman.—Has anyone anything further to bring up under Rubber? If not, we will go on to the next item, that is the "Budget."

Budget.

The Chairman.—Does anyone wish to bring up any matter with regard to the Budget?

Mr. J. H. Cantlay.—I want to say a word with regard to the resolution which has already come up before the meeting, namely, "it is recommended that when the Budget for 1931-32 is being framed, an effort be made to reduce all cesses."

We want to emphasize this point that when the new Budget is being framed, this point is not forgotten.

The Chairman.—Mr. Cantlay, will you move any resolution?

Mr. J. H. Cantlay.—No resolution is necessary. I would like that to be recorded.

The Chairman.—It will be recorded.

Have you anything else under Budget? If not, we will take up the Election of Auditors.

Election of Auditors.

The Chairman.—I have now to propose that our Auditors be re-elected. You doubtless know that under the Indian Companies' Act if any change is to be made in respect of the Auditors, notice has to be given 14 days before the meeting. A copy has to be sent to the Auditors and all members must have notice not less than 7 days before the Annual Meeting. I propose:—

"That the present Auditors, Messrs. Fraser & Ross, be elected as Auditors for the current year on the same remuneration as heretofore."

Those in favour? Those against?

The resolution is carried.

B. U. S. Club.

Mr. R. Fowke.—Mr. Chairman, with your permission, I should like to bring forward a further resolution. It is absolutely a non-contentious one:—

"That this Meeting expresses its thanks for the hospitality its members have received from the President and members of the Bangalore United Service Club and its appreciation for the excellent arrangements made by the Secretary in connection with the Planters' Dance."

I do not think it is necessary for me to speak on this resolution, Gentlemen, but, I am sure, we are all most grateful to the Bangalore United Service Club for the hospitality it has given to us during the week. (Loud Applause). An immense amount of work was done by the Secretary of the Club which deserves our appreciation. I happen to be one of the members of the Dance Committee and I fully realize how much work was done by the Secretary, and the very keen way in which he helped us, and was ever ready to put himself to any inconvenience, so as to be of assistance to us. I put it to you that for the consideration shown to us, we should give the Secretary some kind of a token of appreciation in the shape of a silver cigarette case or something like that. (Loud Applause).

Mr. T. Davenport.—Mr. Chairman, I have very much pleasure in seconding Mr. Fowke's resolution.

The Chairman.—Do you agree that the cost of the silver cigarette case to the Secretary of the Club should be included in the bill for the Dance?

This was agreed to.

The Chairman.—I now put the resolution to the meeting.

Proposed by Mr. R. Fowke and seconded by Mr. T. Davenport:—

"That this Meeting expresses its thanks for the hospitality its members have received from the President and members of the Bangalore United Service Club and its appreciation for the excellent arrangements made by the Secretary in connection with the Planters' Dance."

Those in favour? Those against?

The resolution is carried.

Dance Committee.

The Chairman.—Gentlemen, I think the Meeting should also propose a very hearty vote of thanks to our Dance Committee. (Loud Applause).

Election of Chairman.

The Chairman.—Gentlemen, the last business of the meeting is the election of the new Chairman for the forthcoming year.

The Secretary passed round the ballot papers and the votes were then counted.

The Chairman.—Gentlemen, I have great pleasure in announcing to you that Mr. C. R. T. Congreve has been elected as Chairman for the ensuing year and I should like to congratulate him on his election. (Loud Applause).

Mr. C. R. T. Congreve.—Gentlemen, I thank you for the honour done to me.

Mr. T. Davenport.—Mr. Chairman and Gentlemen, before this Meeting closes, I should like to express, to our retiring Chairman, our thanks on your behalf for all the services he has given us during the past year. (Applause). He discharged his onerous duties to the best of his ability. It has been a very difficult year—the Political situation, the Whitley Commission, the Trade difficulties and a combination of circumstances generally, have given the Chairman a very hard year's work and, on your behalf, I wish to express our very best thanks to Mr. Milner for his untiring efforts during the past year in the interest of the Association. (Prolonged Applause).

Mr. W. A. J. Milner.—Gentlemen, thank you very much indeed for the very kind remarks which you have just made and for your co-operation and forbearance with me during this meeting. In any job, one can only do one's best and, I think, I might say that I have tried to do my best during the past year. I could not have done so without the assistance and support of the Executive Committee and of the Secretary, Mr. Waddington, to whom I am personally greatly indebted. (Applause).

It is no exaggeration to say that the U.P.A.S.I. Chairman's job in these days is a hard job, and is practically a whole-time one. It is certainly not a light task, because the activities of the U.P.A.S.I. have been greatly extended. Points might arise, for instance, in connection with the Political Department, which one outside the sphere of ordinary planting business altogether might not have fully understood, and yet must be considered.

Then you have got three Scientific Stations, and the Labour Department, as well as the general work. I have only been able to visit two of the Stations and I regret that I could not pay a visit to the Coffee Station, which I would have very much liked to do, and which would have saved me from making the mistake I did, which I very much regret, in the reference I made to it in my opening speech on Monday.

I would like to say one word about the Tea Experimental Station, in which naturally, as a Tea Planter, I am specially interested. My humble opinion is that decisions

as to the future of this should be taken very carefully and in consultation with your Scientific Officer. I would like to pay a personal tribute to the work of Dr. Shaw, and to say that I feel very strongly that we have, in him, a very capable and clever Scientific Officer who has done very good work for us under considerable difficulties as regards Staff. (Applause).

Mr. Davenport and Gentlemen, I thank you most sincerely once more for all the kind words that you have spoken about me and my work. (Loud and prolonged Applause)

I now declare the meeting closed.

DEPARTMENTAL ADMINISTRATION
REPORTS
1929-1930

UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA
SCIENTIFIC DEPARTMENT.

Administration Report for 1929-1930

OF

Dr. W. S. SHAW, Ph.D., M.Sc., A.I.C.

Tea Scientific Officer, U.P.A.S.I.,

Staff.—During the year under review no additions or alterations have been made to the staff. A recommendation for an Indian Chemist was rejected by the Executive Committee. It is to be hoped that before long, the Association will find its way clear to augment the European Staff, and employ an Indian subordinate staff, to enable this department to carry out important work on diseases, pests, and the manufacture of tea.

Labour.—This is still a difficult matter, but thanks to Mr. G. W. Fulcher of Woodbriar Estate, a useful gang of about 35 coolies have been obtained.

Health.—The health of the coolies on this Experimental Station continues to be good. Anti-malarial precautions have been taken, and a good supply of water ensured for the use of the labour. Two Latrines have been erected near the Coolie Lines, and one each at the Clerks' and Field Writers' quarters.

Touring.—In accordance with the scheme of touring drawn up by the Tea Advisory Committee, the Tea Scientific Officer toured the Anamallais and Kanan Devans in April 1929, and the Central and South Travancores and Munkakayam in October 1929; the Assistant Tea Scientific Officer toured the Nilgiris in May 1929, and the Wynad and Mysore in December 1929.

In addition the Tea Scientific Officer paid visits to the following Estates at the request of their Managers:—

1. Ganjamudi Estate.
2. Panora Tea Estates.
3. Bupponjee and Huttonkodiji Estates.

Full reports were written in all three instances.

Correspondence.—During the year ending 31st March 1930, 1,102 letters have been received, and 1,010 despatched. This shows a gratifying increase in the number of enquiries sent to this Department over previous years. The enquiries have been made with regard to the manuring and cultivation of tea, and pests and diseases, of which Eelworm and Corticum have been most prominent. So much repetition in letters has been made owing to a number of enquiries on one subject, that it is hoped during the ensuing year, if time permits, to issue printed pamphlets dealing with the more common pests and diseases.

Tea Advisory Committee.—The meeting of this Committee took place in January 1930, and lasted over two days. The Budget for 1930-31 (rejected by the Executive Committee) was drawn up, and various questions regarding this Experimental Station discussed.

OLD TEA PLOT:—

(a) *Yield.*—The area under old tea has given a substantial yield during the year, 506.5 Pounds of made tea per acre being obtained. The yield fell off very badly in the months of February and March. Bearing in mind firstly that the area possesses 14 per cent. vacancies, secondly that the tea consists mainly of low jat bushes, thirdly no manurial applications have been made, and finally, that a further 10% of the acreage was out of plucking as a consequence of the pruning of the "monthly pruning" Experimental sub-plots, the crop figure of 506.5 Pounds of made tea per acre is exceptionally good. It represents the highest yield obtained from this "old tea" acreage since the commencement of this Experimental Station.

After deducting the 400 Pounds of made tea per acre required by the Lease, a credit of Rs. 316-13-6 was obtained on the working of the old tea. This compares favourably with the amount representing the credit obtained during the combined years 1926—1929.

The monthly yields from the "old tea" have been as follows:—

Table I.

Month.	Year.	Yield in Pounds Made Tea per acre.
April ..	1929.	25.0
May ..	"	67.7
June ..	"	32.7
July ..	"	63.1
August ..	"	48.0
September ..	"	51.2
October ..	"	66.3
November ..	"	64.0
December ..	"	41.6
January ..	1930.	27.8
February ..	"	12.8
March ..	"	6.3
Total . .	..	506.5

(b) *Monthly Pruning Experiments.*—In November 1929, the first sub-plot to be treated according to the Scheme of pruning one sub-plot per month, received its second pruning. The pruning given was an exceptionally light one, as much new wood as possible being left, the only condition being that the wood left should be more than pencil thickness. The prune was also a high one, 4"—6" of new wood being left above the old pruning cut. The bushes have come into tipping more rapidly than usual, the growth is vigorous, and the yield from the sub-plots treated in this way promises to be as good, if not better, than in former years.

A light, combined with a high, prune on old tea is a system which should be considered seriously by Planters, and such is especially recommended for areas suffering from severe attacks of *Helopeltis* or stem diseases caused by *Corticium* spp. and similar parasitic fungi.

(c) *Pruning Scheme.*—Previously, the whole plot of "old tea" has been pruned in the same month. This tends to make the year of pruning a low yielding one. In order to avoid this it is proposed changing this system. The "old

tea" consists of three sections, A, B and C, and the following pruning system will be carried out:—

Section	A.	August and September	1930.
"	B.	April	1931.
"	C.	August and September	1931.

(d) *Variation in Sub-plot Yields.*—The old tea was divided into sections A, B and C and sub-plots previous to April 1929, and the sub-plot yields have now been recorded for over twelve months. The figures so far obtained demonstrate conclusively the necessity for making a careful study of the initial fertility of each sub-plot before embarking on any system of experimentation where the results are judged by a comparison of sub-plot yields. The figures reproduced here illustrate the variation between adjacent sub-plots and also the relative merit of sub-plots during the period over which they have been compared.

The sub-plots under consideration are all of approximately the same size, each containing about 125 bushes. The number of bushes and the number of vacancies in each, is known and consequently the yield can be readily transposed into terms of green leaf per acre for purposes of comparison. The data quoted below show the difference in fertility of adjacent plots:—

Section.	Sub-plot No.	Yield in terms of green leaf per acre.
A.	11	2,330
	12	1,290
	13	1,530
	14	2,130
	15	2,410
	16	3,220
	21	2,810
	22	4,360
	23	6,050
B.	10	3,380
	11	2,380
C.	1	2,870
	2	1,710

To show the variations which may occur in the relative merits of a series of plots from one year to the next the following figures showing the yields of the given plots over a certain period in 1929 and the corresponding period in 1930 may be given:—

Section.	Sub-plots.	Yield in 1929.	Yield in 1930.	Ratio. 1930/1929.
A.	18	39.3 lbs.	40.95 lbs.	1.04
	19	39.5 "	54.4 "	1.37
	20	36.8 "	47.2 "	1.28

This shows that until the yearly variation of the plots has been observed long enough for a dependable idea of the fertility to be gained it is useless to try to get accurate experimental results, since the influence of conditions beyond control is sufficient to mask any significance in the figures which might result. To a certain extent this can be overcome by taking the average of several plots but this again has the disadvantage of requiring a large number of plots without wholly obviating the difficulty.

These points are stressed in explanation of the present policy of limiting observations on the yield of the mature tea to a study of initial fertilities and this policy must be adhered to if results of unimpeachable significance are ultimately to be produced.

However there are some sub-plots (Nos. 1-B to 9-B) where the weekly yields have been sufficiently consistent to render it worth while attempting one experiment from which results of sufficient significance could reasonably be expected. On these nine plots a trial has been made of skiffed, compared with normally pruned tea, and, further, the influence of manure on the skiffed tea. This experiment was initiated at this stage because of the importance attached to the necessity of accumulating data on a subject which is of considerable importance in relation to certain pests and diseases. As the information derived from this experiment will be used merely as a pointer in the consideration of the general improvement of tea under adverse circumstances, great accuracy is not as necessary as the need for urgency.

EXPERIMENTS ON THE SKIFFING OF TEA.

Before proceeding with the Experimental work on skiffed tea, it is convenient to give here some observations on this method of treating tea. The skiffing of tea is a mode of pruning tea which should be carefully considered by those Planters resident in areas affected by Helopeltis, for there is no doubt that the skiffing of Tea in Helopeltis districts represents a definitely progressive step in the determination of measures to be adopted for reducing the damage due to attacks of Helopeltis to a minimum. One field noted in South Travancore, which had been put out as a preliminary experiment on skiffing, was of extreme interest in this connection, and indicated the possibilities of such treatment. Briefly, skiffing means the cutting across of a bush at the level where the diameter of the bush is greatest.

From observations already made it would seem reasonable to assume that the month of November is the most suitable time of the year for skiffing. At the same time it is felt that it might be done with advantage later on, *e.g.*, late January and early February. The argument against this time for normal pruning, *i.e.*, not skiffing, is that Branch Canker on the old wood is encouraged as a result of the direct exposure of the wood to the Sun. This argument however would not apply to Tea being skiffed in January, February, as there is still sufficient cover on the bushes to protect the old wood.

Further, January and February seem to be the two months when Tea rests, either from natural physiological causes or as a result of the climatic conditions. Skiffing at this time would therefore mean a less loss in crop, than if it were done in November when the bushes are still in a comparatively vigorous state, and capable of producing good flushes.

It has also been found that about February, skiffed Tea invariably sulks, and runs to Banjhi. Skiffing, therefore, in February would get one over the sulking period and at the same time reduce the possibility of the tea running successively to Banjhi.

Further, tea skiffed in January, February, would be in full vigour during the two best flushing periods of the year, *viz.*, April, May, October and November (possibly also including September and part December).

It might be added that in Assam in the case of the Annual "Prune," which might really be termed a systematic skiffing, this work is done in December when the Tea is more or less moribund as a result of climatic conditions (*i.e.*, cold weather). The comparable time in South India would seem to be January, February, when the vigour of Tea in this area is at its lowest ebb.

An interval of 12 months between skiffings would seem to be most advantageous. If practicable the second skiff (and subsequent skiffs) should be on to new wood, a short distance (*i.e.*, 2 to 3 fingers) above the old skiffing level. At the same time, the thinner spindly and obviously useless wood should be thinned out.

It might be found, however, that going up on skiffed bushes might be impracticable depending upon the level of the first skiff, as naturally the wood on to which one would have to prune would most likely be thin, or consist of "crows feet." In such a case, it would probably be advisable to cut just below the original skiff. If this were done of course, there would then be no necessity to come down to a normal prune (as explained in the next paragraph) at any time.

A heavy prune should not be considered until the skiffed bushes have reached an inconvenient and impossible height, presuming the subsequent skiffings have been made above the original skiffing level. When this is the case it is felt that all the thin wood which has accumulated should be eliminated, and the bushes brought down to say 20" to 22" above ground level, leaving all wood of reasonable thickness provided it is healthy wood. In other words the prune should be a high, combined with a light, one, and under no conditions should a true heavy prune be carried out, as the bushes would take a much longer time to recover from the heavy prune, and would be open to attack of *Helopeltis* to a much greater degree.

Manuring of Skiffed Tea.—This represents a different problem to the Manuring of Tea pruned ordinarily. The necessity for stimulating the formation of new wood after pruning is considerably reduced, and the same applies to the formation of fresh feeding rootlets. The main necessity is the encouragement of foliage production, and hence a rather more forcing mixture, containing Nitrogen in much larger excess over Phosphoric acid and Potash than usual would be advisable. The necessity for organic material in the mixtures is also reduced to a minimum, as the manure would only be intended for stimulating flush.

A mixture which might be used with advantage for skiffed tea is the following:—

Groundnut Poonac	..	15 per cent.
Sulphate of Ammonia	..	44 per cent.
Steamed Bone Meal	..	30 per cent.
Muriate of Potash	..	11 per cent.

Experimental Skiffed Sub-plots.—At the outset it is necessary to explain that the following experimental data have been determined on sub-plots not ready for experimental work. As already stated, the urgency of obtaining results of some significance at least with regard to skiffing rendered it necessary to sacrifice a high degree of accuracy.

Six sub-plots of Section B of the "Old Tea" were Skiffed in September 1928, and the yields of the individual sub-plots taken separately from March 1929, when the general cultivation and routine work were undertaken by the Station from Woodbriar. Three sub-plots were taken at random to represent those to be manured, and the average yield of these three compared with those of the sub-plots to be left unmanured. The Table appearing in the next page gives the average yield of three sub-plots in Pounds of green leaf. The figures in Columns 1 and 3 represent weekly yield, and in Columns 2 and 4, the figures give total yield after given number of weeks.

Table II.

Average weekly yield of sub-plots 6, 8 & 9 (to remain un-manured) commencing 9th May 1929.	Total average yield.	Average weekly yield of sub-plots 4, 5 & 7 (to be manured) commencing 9th May 1929.	Total average yield.	Percentage difference.
6.6	6.6	5.5	5.5	—
12.1	18.7	10.6	16.1	14.0
6.1	24.6	8.3	24.4	-1.6
3.6	28.4	3.0	27.4	-3.5
2.2	30.6	3.3	30.7	0.3
2.1	32.7	1.8	32.5	0.6
1.4	34.1	2.1	34.6	1.5
1.8	35.9	2.1	36.7	2.2
3.1	39.0	3.1	39.8	2.1
3.8	42.8	3.2	43.0	0.5
5.0	47.8	6.1	49.1	2.7
5.2	53.0	5.6	54.7	3.2
4.0	57.0	4.0	58.7	3.0
2.3	59.3	2.5	61.2	3.2
2.6	61.9	3.2	64.4	4.0
2.2	64.1	1.9	66.3	3.4
1.0	65.1	1.5	67.8	4.1
3.2	68.3	2.6	70.4	3.1
3.3	71.6	3.2	73.6	2.8
2.1	73.7	2.5	76.1	3.3
				Average 2.7

There is no necessity to plot the above figures to indicate that the three plots to be manured are almost the same from the aspect of average cropping value. Re-skiffing should not upset the equilibrium to any appreciable effect, as its influence on the physiological reaction of the individual bushes would be almost identical.

Cumulative yields, *i.e.*, these given in Columns 2 and 4 of the above table have been considered the significant basis of comparing the manured and unmanured sub-plots. Thus, if one takes the figures in Columns 1 and 3, it will be noted that sometimes the sub-plots to be manured give larger weekly yields, than those to be left unmanured, and other times the reverse is the case. Further, the effect of manures is cumulative, and though a comparison of the final yields would give the effect of the manures, nothing would be indicated of its effect during the intervening time. It might be stated that the effect of cumulatory comparison is to reduce the percentage difference, though a large absolute difference may be shown. Under these circumstances any appreciable percentage difference between the manured and unmanured plots would be still more significant.

The 6 sub-plots were re-skiffed in September 1929, and the three sub-plots to be treated were manured with the equivalent of 300 Pounds per acre of the following mixture:—

Groundnut Poonac	..	25 per cent.
Sulphate of Ammonia	..	37½ per cent.
Steamed Bone Meal	..	25 per cent.
Muriate of Potash	..	12½ per cent.

Thanks are due to Messrs. Peirce, Leslie & Co., Ltd., Calicut, for supplying the manure free of charge.

The sub-plots were out of plucking following the skiff for 6 weeks, plucking being re-commenced on the 1st of November 1929. The following Table gives the weekly

average yields and the total average yields in pounds of green leaf up to the 5th May 1930:—

Average weekly yield of check sub-plots 6, 8 & 9 (unmanured).	Total average yield.	Average weekly yield of sub-plots 4, 5 & 7 (manured).	Total average yield.	Differ Manured—Unmanured.
2.4	—	2.5	—	—
2.9	5.3	2.3	4.8	0.5
3.0	8.3	2.9	7.7	-0.6
4.4	12.7	4.0	11.7	-1.0
2.5	15.2	2.7	14.4	-0.8
.80	16.0	.7	15.1	-0.9
.60	16.6	1.0	16.1	-0.5
.7	17.3	.7	16.8	-0.5
.3	17.6	.4	17.2	-0.4
Unplucked	—	Unplucked.	—	—
3.0	20.6	2.5	19.7	-0.9
1.6	22.2	2.4	22.1	-0.1
1.3	23.5	1.9	24.0	0.5
1.1	24.6	1.8	25.8	1.2
1.3	25.9	1.0	26.8	0.9
.9	26.8	1.1	27.9	1.1
.4	27.2	.7	28.6	1.4
.3	27.5	.4	29.0	1.5
.1	27.6	.6	29.6	2.0
.2	27.8	.4	30.0	2.2
.5	28.3	1.30	31.3	3.0
1.0	29.3	1.60	32.9	3.6
1.2	30.5	2.20	35.1	4.6
1.0	31.5	3.10	38.2	6.7
1.7	33.2	2.80	41.0	7.8
1.2	34.4	2.70	43.7	9.3
3.3	37.7	4.10	47.8	10.1
4.7	42.4	4.80	52.6	10.2
3.4	45.8	3.80	56.4	10.6
4.9	50.7	6.20	62.6	11.9

It will be noted that for the first 11 weeks, the yields from the manured run parallel to those of the unmanured plots, the former being slightly below the latter in yield. After this, the manured sub-plots gradually increase in yield as compared with the unmanured sub-plots, until ultimately the manured sub-plots show an increase of 11.9 Pounds over the unmanured plots, i.e., an increase of 23 per cent.

Bearing in mind that prior to re-skiffing the unmanured plots were almost the same as the manured plots (see Table 11), a state of co-equality which continued for 11 weeks after re-skiffing and the application of the manure, it becomes

evident that even though the percentage increase of 23 per cent. may not be completely attributed to manure, it is reasonable to accept that manuring skiffed tea does produce an appreciable increase in yield.

It is noteworthy that the manure was practically dormant during the dry months. Significant increase in the yield of the manured plots over the unmanured plots are demonstrated about 19 to 20 weeks after the commencement of plucking, or about the end of March. This time coincides with the commencement of rain, and suggests that the application of manures during the dry months of the year is not advantageous.

These experiments are being continued and it is hoped that next year it will be possible to state the definite increase due to manuring skiffed tea after a complete year, and also the residual effect of the manure in assisting the manured sub-plots to maintain their lead over the unmanured plots after re-skiffing.

1926 PLOT.

(a) *Supplying*.—The development of the tea in this plot shows considerable improvement, but the area is still rather patchy, portions of tea showing vigorous growth lying adjacent to poor patches. The number of vacancies was approximately 10 per cent.; these were supplied up.

(b) *Pruning*.—The majority of plants had received their second prune in April 1929 to heights varying from 6 ins. to 12 ins. above ground level (see Annual Report 1928-29). In order to enable the more backward parts to make up way on these plants with respect to pruning, the latter, i.e., those which had received their second prune, were cut across at 24 ins. above ground level, and tipped and plucked very lightly. In April 1930, those plants ready for the first cut to 2 ins. were pruned, the pruning cuts being protected by Skenes Enamel Wax and Tar.

(c) *Sulphur Experiments*.—It has been known for many years that the addition of Sulphur to a soil produces an increase in acidity, and the Indian Tea Association Quarterly Journal, 1925, Part I, included an account of the

influence of Lime, and Sulphur, on the growth of tea plants and subsequently showed that tea requires for optimum growth an acid soil of pH about 5.5. The Tocklai experiments showed conclusively that under certain soil conditions, notably a deficiency in acidity, the addition of Sulphur to a soil has a very considerable beneficial effect on its suitability for Tea.

From the data derived from numerous South Indian Estates it has long been evident that many of the soils of Tea Estates in South India are not as acid as might be desired and consequently an enquiry into the effect of Sulphur on changing this acidity became desirable. It was moreover considered that the patchiness of the 1926 Plot might be a case in point, where the poor growth was certainly mainly attributable to such a deficiency. This area was therefore divided up into sub-plots and after a preliminary survey of these with respect to their acidities a Sulphur experiment was started in October 1929.

The area was divided into 35 sub-plots of as nearly equal size as could conveniently be done and the pH value representative of each of these was determined. To do this 7 or 8 borings were taken from each sub-plot by means of an auger, 7 being taken from each triangular plot and 8 from each quadrilateral plot so that the borings were evenly distributed over each. The samples thus obtained were thoroughly mixed and a small portion used for the determination of the pH value.

From the figures so obtained the sub-plots were divided into 3 classes according to their acidity and subsequently these were re-assorted into five groups by taking at random three from the largest class and two each from the two smaller classes. Thus five groups, each consisting of seven plots were obtained and containing plots of comparatively high and low pH values and having approximately the same group average. To four groups of plots Sulphur was added at the rate of $2\frac{1}{2}$ cwts., 5 cwts., $7\frac{1}{2}$ cwts. and 10 cwts. to the acre and the fifth group was left as a check.

The Sulphur used was Flower, Rock and Ground Sulphur, ground up fairly finely between Ragi stones and

roughly sifted through holes made with a nail in the bottom of a Kerosene Tin. After broadcasting the appropriate amount of Sulphur over each plot, the whole area including the check plots was lightly forked to prevent the Sulphur being washed by rain or blown by the wind from one plot on to another across the demarcating trenches.

Subsequently the pH value for each plot was determined fortnightly. Owing to the time taken in obtaining the numerous samples it was found necessary to take samples of only four plots in each group on one day and to take the remainder on the second day. The pH values were determined as soon as possible after sampling. No attempt was made to control or standardise the water content of the samples as it was considered sufficient to observe the pH of the soil as in situ, any differences due to the water content being, on the whole, adequately reflected in the variations of the check plots. Moreover the increase in Laboratory work which such an attempt would entail would be beyond the capacity of the present staff.

After the experiment had been carried on for some time it was evident that the sampling on certain plots was unsatisfactory owing to very great local variations in acidity due to proximity to buildings and the site of old heaps of lime, and possibly to the effect of lime in the days when the area in question was under Coffee. These plots have been omitted in calculating the results.

As the effect of the Sulphur has not yet reached a maximum, particularly where the heavier applications are concerned, and as a full year has not yet elapsed which would enable one to introduce the effect of seasonal variations in soil moisture conditions, no final results can at present be derived, but the variations already observed are quite instructive.

The pH value of every plot has fallen very appreciably and in the case of the 10 cwt. and $7\frac{1}{2}$ cwt. groups shows every sign of continuing to do so. On the other hand both the 5 cwt. and $2\frac{1}{2}$ cwt. groups fluctuate somewhat erratically and it would appear that the $2\frac{1}{2}$ cwt. application has already exerted its maximum effect and that this is now wearing off. The 5 cwt. plots are still inductive, the effect produced being

much less than would be expected from a consideration of the $7\frac{1}{2}$ cwt. and 10 cwt. groups.

In estimating the results up to the present the changes of the check plots have been taken into account, and these have been in themselves very significant. From the very commencement of the experiment there has been a steady fall in the pH of the check plots and this can only be attributed to the effect of the drying out of the soil and possibly the rise in soil temperatures. This change has been of sufficient magnitude to indicate that an isolated determination of the pH value of a soil is not sufficient by itself to classify the soil. In conjunction with the observed value there must also be taken into account the time of year at which the sample was taken and the climatic influences preceding this. Recent researches on the effect of drying on the reaction of soils (Soil Science, January 1930) have shown that the change is brought about more by heating than by dehydration. This leads to the suggestion that soils under mature tea would not suffer such a large change in reaction during the dry weather and hence this factor should also be taken into account in judging the significance of any acidity determination.

The method used for the determination of the pH values has in every case been electrometric using quinhydrone and a standard cell containing a mixture of hydrochloric acid and potassium chloride with a pH 2.04. The apparatus and the method were very fully tested before being applied to this work and a special technique developed to enable the estimation to be done with the maximum accuracy and despatch.

1927 Plot.—The whole of this plot has been systematically trenched (honeycomb fashion) and green manure added to the trenches in order to improve the quality of the soil. Three-quarters of the plot is showing very good progress, and it is proposed giving this portion its second prune in July or August 1930. It is also proposed to leave the remaining quarter out of the pruning treatment, and endeavour to improve the soil, supplying up to be done in 1931 with healthy $2\frac{1}{2}$ year old stumps.

This plot was again supplied up towards the end of June 1929, the number of vacancies at that time being 7 per cent.

1928 Plot.—This plot has shown excellent growth, most probably because it is situated on jungle soil. It might be stated to be the best area of soil on the Experimental Station. The drought did not have any seriously retarding effect on the growth of the tea, though a certain amount of damage was caused by wind, the plants being rung at the collar. It was invariably found, however, that such plants possessed a defective root system, the tap root not being sufficiently developed to hold the plant firmly in the soil. This area was supplied up in June 1929, and the majority of plants were pruned down to 2 inches.

Two plots of about 400 bushes did not receive this low cut, but were cut across the centres of the bushes at 12 ins., and side branches at 18 ins. The proposal is to compare the development of high cut plants, with those cut low, and further to note if branches are sent out from below, in the case of the high pruned plants, in the same manner as such branches are formed when this method is adopted in high elevation estates, such as those in the Nilgiris.

1929 Plot.—Previous plots had been planted up with either Assam or South Indian Tea, and it was considered advisable to put down a small area of Ceylon Tea. For this purpose Tea Seed was obtained from Chapelton Estate. The seed was good, and germinated well. The plants themselves do not possess the large leaves of Assam, or Assam related, types of tea. Growth has been good. Other plots were put down consisting of Dutea and Dhoolia plants derived from seeds sent to this station for examination. The complete 1929 plot is as follows:—

Name of Seed.	Date Planted.	Number of Plants.
Chapelton (i)	June 20th	500
" (ii)	" 21st	300
" (iii)	" 27th	400
" (iv)	" 28th	225
Dutea	" 29th	336
Dhoolia	" 29th	144

1930 Plot:—

(a) *Nurseries and Seed Germination*.—During the year under review Bonaccord, Chapelton, Dhoolia Manipuri, Dhonjan and Dangri Seed were obtained to provide plants for supplying purposes and Dhoolia Maniam, Taikong and Markong were obtained for planting new areas in 1930. Thanks are due to the following for supplying this station with Tea Seed free of charge:—

Messrs. Tea Estates (India) Ltd., Calcutta, for Dhoolia Maniam Seed.

Messrs. General Export Co., Calcutta, for Taikong and Markong Seed.

Manager, Bonaccord Estate, S. Travancore, for Bonaccord Seed.

Each of these jats of seed showed very satisfactory germination and produced vigorous plants. The Chapelton seed yields a rather low hybrid plant and the Dhoolia Maniam gives a mixture of light and dark leaved plants, all of very good jat.

A number of experiments were tried dealing with seed disinfection and methods of planting. These included the use of Formalin Solutions of various strength on germinated and ungerminated seed and the use of Sulphate of Iron as a disinfectant; planting ungerminated seed and the use of Sulphate of Iron as a disinfectant; planting ungerminated seed directly with beds, planting of bed plants with a 5 ins. by 5 ins. spacing instead of the usual 4 ins. by 4 ins. planting as a compensation for poorer soil.

Seed Disinfection.—Three batches of 200 Dhoolia Manipuri seed were treated with 1 per cent., 5 per cent. and 10 per cent. Formalin Solutions and another batch with 2 per cent. Sulphate of Iron Solution. The seed were left soaking for one hour in each instance. They were then put out to germinate on sand under coir matting. The sand was saturated previously with a 2 per cent. Sulphate of Iron Solution. A record of the germination of each batch was then kept. No further steps were taken to hinder the development of fungus. Result showed that the Sulphate of Iron had the best effect and that 10 per cent. Formalin was next in order of efficiency. This was unexpected as it was presumed that

formalin of this strength although adequate in disinfection properties would probably have a detrimental effect on the seed.

The results obtained were:—

2 per cent	Sulphate of Iron	94 per cent.
10 "	Formalin	91 "
5 "		86 "
1 "		62.5 "

A second experiment on germinated seed was carried out as follows:—120 newly germinated seed were divided into 12 batches of 10 and the different groups were subjected to immersion in Formalin Solution of strength 0.1 per cent., 0.3 per cent., 1 per cent., 3 per cent., 5 per cent. and 10 per cent. for periods of 5 mins. and 1 hour. The seed were then planted in 3 ins. of sand, almost completely covered, and kept damp. The growth made was studied a fortnight later with the result shown below:—

Strength of Formalin.	Time of Immersion.	Percentage of seeds with normal growth.
0.1%	5 Minutes.	100
	1 Hour.	80
0.3%	5 Minutes.	80
	1 Hour.	60
1.0%	5 Minutes.	50
	1 Hour.	Nil.
3.0%	5 Minutes.	20
	1 Hour.	Nil.
5.0%	5 Minutes.	30
	1 Hour.	Nil.
10.0%	5 Minutes.	Nil.
	1 Hour.	Nil.

It is worth pointing out that in some instances abnormal growth occurred. Here the root did not develop but the plumule continued to develop. It would therefore appear that the Formalin had a detrimental effect on the growing point just behind the root tip.

These two experiments show that where seeds are not cracked, quite strong solutions of Formalin may be used with safety but where any germination has taken place only very dilute solutions can safely be employed. Sulphate of Iron appears to be a safe substitute for Formalin as a seed disinfectant and it apparently has a more lasting effect.

Planting Ungerminated Seed.—A number of Dhonian and Dangri seed were planted in beds without being germinated first. The seed were put out with the eye downward and were completely covered with soil. Germination was less rapid than on the beds but the percentage germination was higher, being 87.5 per cent. as compared with 75 per cent. This is undoubtedly due to the fact that as the seed are not touching there is no spread of fungus from infected seeds to healthy ones.

The resulting plants were reasonably even in growth and the number of plants with twisted roots was very small. It was observed that the majority of plants suffering from this defect were situated along the edge of bed which for some time had been exposed to the Sun at certain times of day and where the soil was consequently dried out and rewetted daily. It is possible that these variations in the water content of the soil around the seed are responsible for the irregular cracking of the testa which is the immediate cause of twists as a general rule. This assumption suggests that control of the watering of germinating beds is a decisive factor effecting the percentage of twisted roots among the resultant plants.

The success of this experiment suggests that the trouble and expense of germinating beds is largely unnecessary particularly when good seed is being used. If germinating beds are dispensed with the utmost care should be taken to ensure that the seed is planted with the eye downwards.

It is obvious that if successful germination takes place when the seed is planted out in beds such a system has great advantages over the usual germinating bed method as it is not only cheaper but the seed is less likely to be attacked by fungus and suffers no disturbance after germination. The disadvantages are that if germination is slow the resulting

beds would be somewhat uneven in growth and if the seed is poor, giving say only 70 per cent. of germination, there would be a waste of space owing to the preparation of 30 per cent. more bed space than would be required if only the germinated seed were put out. Watering might need more careful attention than usual until the seed had germinated as both overwatering and too infrequent watering would undoubtedly be harmful.

(b) *Scheme for Planting.*—In the coming monsoon it is proposed to plant the area lying between the 1928 Plot and the Assistant Tea Scientific Officer's Bungalow and the Coolies Lines and also the area between the Assistant Tea Scientific Officer's Bungalow and the Government Road. The former area will be divided into 4 approximately rectangular plots in which the distribution of Jats will be as follows:—

1. Dhoolia Maniam Basket Plants	2,600
2. Dhoolia Maniam Basket Plants	1,600
3. Taikong Basket Plants	1,000
4. Markong Basket Plants	1,000

This area will be planted 4 ft. x 4 ft. triangular.

The second area will also be planted with Dhoolia Maniam Basket Plants but the spacing will be 4 ft. x 3½ ft. rectangular. 1,800 Plants will be required.

Drains will be put in after the question of ultimate subdivision into sub-plots has been considered so as to prevent wash and carry off the surface water without interfering with the best arrangement of sub-plots.

Tung Oil.—There has recently been a desire for the establishment of Tung Oil in suitable areas of the Empire, and interest in this product has been stimulated in all countries where the Tung Oil producing plants might thrive. The U.P.A.S.I. were approached on the subject by the Authorities at Kew and in consequence seed of the chief trees, *Aleurites Fordii*, and *Aleurites Montana*, have been supplied to this Department so that the suitability of South India as a habitat for these trees might be investigated.

Tung Oil is extracted from the seeds of the *Aleurites* species and is used extensively in the lacquer industry. At present China is the main source of supply. A detailed account of this product appeared in the Quarterly Journal of the Indian Tea Association, Part IV, 1929. Up to the present plants have only been obtained from the seed of *Aleurites Fordii* and the germination of these was very slow and has only amounted to 10 per cent. After germination growth is very rapid. These seeds were germinated in baskets and were big enough for planting about 3 weeks later, when rootlets were already pushing out through the sides and bottom of the baskets. These plants have been planted out.

Seed of *Aleurites Montana* has only recently been received. The Belgaum Walnut or Candle Nut tree, *Aleurites Triloba*, is a closely allied and very similar tree and it appears probable that where this tree grows satisfactorily the species of greater commercial importance might also flourish.

Details of the Tung Oil Plants may be obtained from this Department, though it appears that at present seed cannot be procured.

Meteorological.—The year ending March 31st, 1930, was characterised by a fairly light but prolonged South-West Monsoon and a long and very dry period of hot weather. The April and May rains in 1929 were fairly satisfactory and rainfall was heavy during the early part of the monsoon but there was less than the normal fall during July and August. South-West rain were experienced however until the 10th of October. The North-East Monsoon was very light and from the 17th of November to the 27th of March there were only 2 days on which more than 10 cents of rainfall. Moreover this period was accompanied by intense drought, the humidity and vapour pressure readings during February being lower than any previously recorded at this Station. The temperatures reached were more moderate than those recorded in previous years, the maximum temperature observed being 89.5°F and the minimum being 55°F.

The following table gives a synopsis of the observations made:—

Month.	Rainfall.	Days with rain.	Temperature °F		Humidity %		Vap.		Pres.	Clouds.
			Mini-mum.	Maxi-mum.	8-30 a.m.	3 p.m.	8-30 a.m.	3 p.m.		
April 1929 ..	5.6	24	64.9	82.8	89.1	71.9	22.9	23.3	5.7	
May ..	3.48	14	66.3	82.7	82.6	74.3	23.6	24.6	4.2	
June ..	23.22	28	64.8	73.2	92.7	91.5	22.1	23.2	9.0	
July ..	19.37	30	64.8	72.5	95.5	91.1	21.3	23.0	8.7	
August ..	8.53	25	64.2	73.6	91.2	91.9	20.7	22.3	6.3	
September ..	7.39	24	63.2	76.3	92.0	84.2	21.1	23.3	4.9	
October ..	5.25	19	63.8	76.0	89.0	80.0	21.3	23.0	5.2	
November ..	1.83	12	62.9	77.3	88.8	69.2	20.2	20.4	3.4	
December ..	0.50	6	60.8	77.3	88.7	57.0	18.5	17.2	1.7	
January 1930 ..	..	..	58.8	80.0	82.0	45.2	16.8	15.2	0.7	
February ..	..	..	60.4	82.8	73.9	38.5	16.9	13.4	1.3	
March ..	1.04	4	62.7	85.5	84.0	50.3	21.1	18.3	1.6	

LABORATORY INVESTIGATIONS.

1. *Tea Tannin Principles.*—Investigations on the tannin components of green leaf and "made tea" have been continued during the year. The necessity for considering the tannin of green leaf as a different substance to the "tannin" of "made tea" has been appreciated, and green leaf tannin has received first attention. On analogy with tannins derived from other material production, the name "Theotannin" has been given to green leaf tannin. Part I of a dissertation on "The Tannin Principles of Tea" is in the hands of the publishers, and deals entirely with Theotannin. It includes a new method for its preparation, a thorough investigation of the methods at present employed on Tea Experimental Stations for estimating Theotannin,—their discrepancies and suggestions for overcoming these; a new method for estimating Theotannin is given, superior in accuracy and ease of working to other methods; and finally suggestions with regard to a peculiarity in the constitution of Theotannin, which will be of great value in considering the changes in Theotannin during withering, fermentation and firing.

Progress has been made with Part II, dealing with "made tea." This part deals with manufacture, and will most probably claim the attention of Planters to a greater degree than Part I, which, though the foundation of Part II, is of a more scientific nature.

Unfortunately, owing to a very limited European staff and entire lack of a subordinate staff, work on Part II has had to be temporarily shelved, but it is to be hoped that the Association will appreciate the cramping effect of such a condition upon vital work, and endeavour to remedy this as soon as practicable.

2. *Soil Acidities*.—Acidity of soils received from Estates.—In addition to the estimation of acidities required by the Sulphur experiments already outlined a number of soils received from various estates have been examined. The results of these have been found to be of great significance as it would appear that the variation from one district to another is much greater than was previously accepted. These determinations have been made chiefly in the interests of manuring but also partly in relation to disease. Sufficient evidence has not yet been accumulated to render it possible to state definitely that in certain localities the soil reaction is a factor predisposing towards specific diseases but it is not improbable that such a state of affairs may ultimately be proved to exist. As regards manuring it is already obvious that full information on the reaction of soils to be manured is essential before a scientifically sound manuring programme can be drawn up. Especially where heavy manuring is carried out care should be taken that any influence which these manures have on the soil reaction is in the right direction, otherwise, the detrimental effect on the degree of acidity will counteract an appreciable percentage of the value of the manure. This means a waste of money that can only be detected, either after many years, or by immediate reference to the pH value of the soil and its relation to the ingredients of the fertiliser mixtures used. A knowledge of the soil reaction is in the vast majority of cases far more important than a detailed soil analysis.

A thorough survey of South Indian Tea Soils with respect to their acidities would be of immense value to this Department.

In conclusion, I would like to tender thanks to Mr. K. B. W. Jones, B.Sc., A.R.C.Sc., for his assistance in compiling this Report.

W. S. SHAW,
Tea Scientific Officer, U.P.A.S.I.

UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA
SCIENTIFIC DEPARTMENT.

Administration Report for 1929-1930

OF

W. WILSON MAYNE, B.Sc.,

Coffee Scientific Officer, U.P.A.S.I.

I have the honour to present my administration report for the year ending March 1930, dealing with the work in progress in connection with coffee.

I have remained at the Mysore Government Coffee Experimental Station under the direction of Dr. L. C. Coleman during the year. In addition to my own specific work outlined in this report, I have assisted in work connected with breeding and spraying carried out at the Station.

I toured parts of Mysore, Coorg, Shevaroy's, Nelliampathies, and Nilgiris during November, December and January. For the first part of the tour I was accompanied by Mr. F. R. Sanders, Agricultural Officer Designate, Tanganyika Territory, who was visiting South India to gain some experience of coffee conditions before joining his post. The main purpose of the tour was to collect seed for use in the selection work in progress at the Station so that no possible source of good seed in South India should be overlooked. In all, 23 selections were made, though seed was not actually available this year in every case.

The report comprises a short account of the tour, general notes on various problems raised in correspondence and discussion during the year, insect pests, fungus diseases and an account of the scientific work undertaken or in progress during the period covered by the report.

TOURING:—

This account of touring is of a general nature, as most of the specific problems raised are dealt with in other sections of the report.

Mysore.—The visits paid in Mysore were largely for the benefit of Mr. F. R. Sanders, and there is little to add to the observations recorded in the report for 1928-29. The weather conditions in 1929 having been favourable and the

trees in good health owing to the light crops of 1928, the crops throughout this district were heavy and in most cases, particularly where spraying had been carried out, the trees were carrying them very well. Special attention was paid to the utilization of pulp and other estate residues, a consideration of which will be taken up below.

Coorg.—The remarks in the case of Mysore apply equally to this district. Four outstanding trees were marked for seed and supplies were promised for 1931 planting.

A visit was paid to the estate which suffered from Mealy Bug attack in May 1929, and the shade tree from which the bug appeared to spread, identified as *Leucaena glauca*. I was not aware that there was any quantity of adult specimen of this tree in South India, but there is no doubt that this identification is correct.

Shevaroy.—The conditions in this district are entirely different from those in Coorg and Mysore and the differences in practice are very illuminating.

The fundamental distinction is climatic. The Shevaroy enjoy a moderate rainfall of from 50 to 70 ins. a good deal of which falls in the North-East Monsoon. The dry weather so characteristic of Mysore and Coorg is not so well marked and in fact it is rare for a dry period of two months to occur. This has both advantages and disadvantages. From the point of view of clearings, it is very favourable and the difficulties of bringing on young coffee are sensibly reduced. In fact, I have never seen finer young coffee than that in the Shevaroy. In view of the frequent rain, there is little risk of drying out and shade in clearings presents no problem. The young plants in the open are very stout and strong with short internodes and frequent branching. The "charcoal" tree, regarded as the worst possible growth in a clearing in Mysore, is here tolerated as light shade in some clearings, the water loss not being a serious factor.

On the other hand the very frequent rain interferes with cropping. The blossom may appear at intervals through the year so that picking becomes very expensive and often much crop is lost. The danger of rain on the open blossom is also considerable and often results in losses. Drying of pulped coffee is rendered difficult by the rain; this district is one of the few places in South India where artificial drying might warrant the expense involved.

Clearings are clean felled and burnt, none of the jungle trees being left as permanent shade as is the practice in Mysore and Coorg. This enhances the permanent shade difficulties. *Erythrina lithosperma*, *Grevillea robusta* and species of *Albizia* are planted and *Leucaena glauca* is being tried. There is a very general objection to jungle shade on account of green bug.

Many of the estates are very steep and a considerable amount of stone terracing has been carried out to prevent the loss of the curious light and friable soil on which a number of estates are planted. The expense is considerable but the results are very satisfactory in building up a sufficient depth of soil in places where the loss after clearing the jungle would have prevented the planting of any sort of crop.

The treatment of old coffee follows the same general lines in practice in other districts and shows the same variety.

The terraced estates on the very steep land are wide planted, often with only 600-800 trees to the acre. The trees under these conditions do not lose their lower primaries to the same extent as closer planted coffee and the crop borne per tree is higher so that yields do not differ very markedly.

Diseases and Pests are essentially similar to those in other districts though there are one or two differences in the case of Leaf Disease and Root Rots. In the case of Leaf Disease there appears to be no marked seasonal variations though some observations on the effects of spraying suggest that there are sufficient variations to make it necessary for spraying to be carried out at the right time if any satisfactory result is to be obtained.

On one estate, the beneficial results of spraying have been very marked; on another, no such success has attended the experiments in this direction. In the former case the spray was applied in June, July and August whenever weather permitted, while in the latter, experiments were all made in October. The difference in the time of year may go a long way toward explaining the differences in results.

The Root Disease seen in this district is of interest in that it shows itself independent of rotting stumps. A further consideration of this will be found under Root Diseases below.

Seed selection in this district yielded a variety of types, all of which have been put down at the Experimental Station.

Nelliampathies.—Conditions in this district resemble those in Mysore, though the rainfall is rather heavier. The coffee at the eastern end of the range is finer than that to the west. The jungle on these hills is very fine and it seems a great pity that more use cannot be made of many of the trees as shade. As clearings are all clean felled, the shade problem is acute in the older coffee. *Gliricidia maculata* is being tried to supplement the *Erythrina* and *Grevillea* now in use. The fine *Albizias* seen here and there in the estates suggest that this tree and related species might well be tried more extensively.

The pests and diseases exhibit no very striking peculiarities. In addition to Green bug and Shot-hole borer in Robusta and Leaf Disease and Black Rot, a few cases of Root Mealy Bug (*Pseudococcus citri*) were seen. A borer of *Erythrina* was also found to be doing much damage on one estate.

A spraying demonstration was given on one estate in this district. It was noticed that the lime was of very poor quality as even after standing in contact with water for a half hour no heat was generated. Apparently, this type of shell lime requires hot water for slaking as I am informed that satisfactory results can be obtained in this way.

An attempt to pulp Robusta coffee had been made on one estate in this district but great difficulty was experienced in fermentation and washing.

Nilgiris.—Coffee in the Nilgiris presents an entirely different set of problems from those found in other districts. Climate and elevation serve to mark off this district from all other South Indian coffee growing regions.

On the Coonoor and Kotagiri side, where most of the coffee on the Nilgiris is to be found, the rainfall is fairly well distributed with the greatest intensity in the North-East Monsoon. Around Kotagiri the rainfall is on the low side

for coffee. The altitude of the majority of the estates is around about 5,000 feet.

To the altitude may be attributed the remarkably stout and short-jointed wood growth and the regular shape of the trees. In appearance the coffee in this district is the finest I have seen. The well distributed rainfall has the great disadvantage that crop is spread all through the year, making picking very expensive and losses considerable.

At the time of my visit there was a very remarkable spike on the trees but on account of the frequent rain on the open blossom and other causes so far unknown, the percentage of spike which eventually becomes fruit appears to be very small. This seems to me to be one of the biggest problems facing the coffee grower on the Nilgiris.

Shade is everywhere light, mainly composed of *Grevillea* and in some places *Albizzia*. The former tree gives much more satisfactory shade in this district than in those of lower elevation. On one estate on the Kotagiri side, the *Grevillea* was being removed on account of its heavy water requirement. *Erythrina* was used as temporary replacement as well as one or two bushy leguminous plants belonging to *Cassia* and *Crotalaria*. Here again, I should think *Albizzias* would be of use.

Among the pests and diseases, Green bug easily takes first place. At the time of my visit the Black Fungus had the attacks well in hand but the condition of the trees showed how very serious the pest had been. In view of the rainfall distribution, it seems to me that the Nilgiris is an eminently suitable district for the dissemination and growth of this fungus and efforts at artificial should repay the expenditure.

On one estate a little spraying had been done in July and August and the trees certainly stood out as a result of it, but on the whole, fungous diseases do not appear to be very serious. Root Disease is however an important cause of loss at one place mainly as a result of the presence of many dead shade trees.

A short visit was paid to an estate on the north-west of the Nilgiris where climatic conditions are more like those of Mysore and Coorg. The young coffee at the top of this estate was very fine indeed, but the older areas showed

signs of past neglect. Black Rot has done a good deal of damage here and recommendations were made for treatment.

Curing.—During the tour visits were paid to curing works in Coimbatore and some discussion on factors involved in quality took place. Colour seems to be the factor most closely connected with methods of preparation but it is almost impossible to obtain information on the estate treatment of consignments which turn out particularly well or badly in the curing.

Of the principal defects of physiological or pathological origin, Foxiness and "Black Bean" are the most important, though neither reach very serious proportions. Foxiness seems to arise from prolonged storage before pulping, over ripe fruit, or over fermentation. No satisfactory explanation of "Black Bean" has been offered.

In addition to the tour, visits have been paid to several estates in Mysore in connection with observations on Die-back, Leaf Disease and Green bug.

MANURING:—

A number of enquiries on manuring of coffee have been received during the year. In all cases the suggestions of Dr. Narasimha Iyengar as outlined in his pamphlet "The Improvement of the Coffee Industry in Mysore" have been used as a basis for recommendations. In addition, on a number of occasions I have had the opportunity of discussing the problems with Dr. Narasimha Iyengar personally and I should like to express my gratitude to him for his ready assistance.

The most striking feature of the majority of manuring schemes which I have seen is the relatively low amounts of Potash. In the case of coffee, Potash is by far the most important mineral constituent of the bean and as most soils show relatively small amounts of this element in an available form, adequate supplies are very necessary if crops are to be kept up.

In addition, Potash is an important element in wood formation while it has been found in the case of some plants to exert a favourable action against disease. In view of this a greater emphasis on Potash seems desirable.

UTILIZATION OF PULP RESIDUES AND WASTE.

The question of the effective utilization of pulp and other residues is a matter of great interest, though in many places little care is taken to get the best value out of such materials. The preparation of pulp for manurial purposes may be considered as a special case in the preparation of artificial farmyard manure and the methods in use for the latter could well be applied to the former, though there is perhaps less need for the addition of a starter. The most satisfactory mode of storage is a pit, the more solid the bottom and sides the better to prevent the loss of material in solution. At one estate, a stone and cement pit was in use for pulp storage. To the pulp, any other available vegetable waste, line sweepings, etc., might well be added.

If a starter is to be used the pulp should be put in, in layers about a foot deep and the starter sprinkled over each layer as it is completed. There are many possible materials which could be used for this purpose. In experiments in North India (Carbery and Finlow, *Journ. Agric. India*, XXIII, 2, 1928) cattle urine diluted 10 times with water, sprinkled over each layer at the rate of one pint to one cwt. of waste matter, was found most effective. "Adco" has given excellent results on several estates and the pulp so treated looks very rich. Sulphate of Ammonia and Bone-meal, Ammophos, and Calcium Cyanamide are other materials which have also been used with success as starters in making manure from waste. The important point in the use of starters is that the material must be distributed as much as possible through the pile. Furthermore the waste must not be allowed to dry out.

In the effort to retain as much of the liquid matter as possible, it would be of value to thatch the bottom of the pit with dry hay or straw, which would act as an absorbent litter. The completed heap would also benefit if covered over to prevent some of the loss into the air.

Such a compost should be ready for use in three or four months. Probably the greatest value would be obtained if the application is carried out just before the monsoon.

MULCH:—

On most coffee estates the soil is covered by a thick mulch and this is doubtless of considerable value in the dry weather as a means of preventing the upper surface of the soil becoming dried out. The manurial value of this mulch is often lost for considerable periods however as decomposition is delayed when the leaves lie on the surface of the ground. In many cases the value of the mulch would be much increased if it was worked into the soil in the early part of the monsoon. Under such conditions it would be rapidly converted into useful humus instead of piling up into thick beds of very slowly decomposing leaf. Such layers of mulch tend to foster fungous diseases such as *Rosellinia* and very probably, in so far as they contain dead coffee leaves, help to preserve Black Rot over the dry weather. A thinner mulch is probably as efficient as a very thick one in preventing drying out and the burial of one deposit is soon followed by the development of another. In this way the good effects of mulch are not lost, while the disadvantages of thick deposits, both in locking up plant food and in fostering fungi, are avoided.

There are, of course, exceptional cases where coffee is growing on very steep slopes and the mulch cannot be touched, but on ordinary slopes the objections to working in the mulch do not occur.

PRUNING:—

The great variety of opinion on the pruning of coffee has been reflected in many discussions with planters in various districts and a few of the points raised in connection with this operation seemed worth recording.

In the first place, the advantages of regular pruning can be summarized as follows:—

1. Encouragement of new wood formation.
2. Reduction in the amount of unproductive wood.
3. Assistance to the free circulation of air and the prevention of matted growth favourable to diseases like Black Rot.
4. Facilitation of Spraying and Picking.
5. Avoidance of wide fluctuations of crops from year to year.

The difficulties arise in the methods to be used to gain these ends. Of course the removal of suckers, gormandizers and dead wood presents no problem and is regularly carried out on all estates, but further treatment, if any, varies very considerably.

On the majority of estates, some pruning is done after crop, when the dead wood is broken off,—mainly the removal of long branches with only a tuft of leaves at the end, which no longer show any signs of bearing crop. It is on the question of removing young wood that there is great diversity of opinion.

In some cases, the general method is to remove no young wood at all, leaving centrally growing wood and even gormandizers, though the latter may be removed after giving one crop. This method soon leads to matted growth and thin wood and with the increasing amount of spraying, the tangled growth is even more marked than formerly when Leaf disease and Die-back did the pruning.

When the growth has reached this stage, a fairly heavy thinning out may be resorted to so that the estates may receive a vigorous pruning every four or five years.

On the other hand, there are estates where regular centring and removing of some new growth is carried out every year. The heaviness of this treatment varies greatly on different estates and is dependent on local conditions and opinion. No hard and fast rules can be laid down. In this way the occasional heavy prune is avoided and the trees never get into a matted and tangled condition while new wood gets a better chance of stout development.

It seems a sounder practice to prune regularly every year than to rely on an occasional thinning out to keep the trees in a manageable condition.

The pruning, other than the removal of old wood, is probably most conveniently done in the monsoon at the time of suckering when growth is slight and the crop making big demands on the resources of the trees. Old wood is usually removed after crop when the handling of dead wood is carried out.

PREPARATION OF COFFEE:—

While the methods in use for preparation of coffee are fairly uniform throughout the districts I have visited, this does not imply that a final perfection has been reached. As this subject has been raised on many occasions both in discussion and in correspondence, a few notes and observations on methods are included in this report.

Of the factors involved in quality of coffee, colour seems the only one which can be much influenced by the mode of preparation, in particular, by the process of drying. Without any definite knowledge of the chemistry of coffee colour, any suggestions can only be of the most tentative nature. Judging by the experience in Java and Central America, it seems that drying must be slow or very rapid if a good colour is to be produced. In Java, the general opinion seems to be that a temperature of 90°C. is most satisfactory, provided the coffee is turned regularly on the hot plates. The whole drying is completed in 24 hours, for the last few hours the temperature being lowered to 50°C. In Guatemala, however, where artificial drying temperatures are much lower, it is considered that the slower the drying the better and if circumstances permitted the length of time should be increased.

In India, where there are only a few artificial dryers the process is of necessity, slow and the experience elsewhere suggests that any speeding up of the drying, short of very high temperatures as used in Java, is more likely to do more harm than good.

The danger is probably greatest when the coffee is wet and it seems that the preliminary drying should be carried out with as little heating as possible. In Java the wet coffee is first allowed to drain on perforated plates for periods up to an hour in duration by means of which about 5 per cent. of the water is removed. Although this amount is not very great the method might be worth consideration as the time required is probably less than that required for the evaporation of the same amount of water.

In general, it seems better to carry out the first stages of drying on tables rather than on the ground. On tables, drying is greatly aided by air circulation and is not so dependent on the heat of the sun as is drying on the ground. Moreover, there is less risk of uneven drying. Whichever method

is used constant turning is everywhere recognised as essential.

The later stages of drying generally cannot be done on tables and the ground must be employed, but the dangers of rapid sun drying are likely to be much less on the coffee at this stage.

Fermentation.—In view of the difficulties of fermenting Robusta coffee, an enquiry was received with regard to the possibilities of some modification in the methods usually employed. Recent investigations in Java show that the fermentation of coffee is a pectin fermentation comparable with the retting of flax. In all bacterial fermentations, the action is retarded by the accumulation of the products, so if it were possible to remove the soluble substances formed by the action of the bacteria, the time required should be sensibly reduced. In the methods used in South India, the products of fermentation are all retained in the heap so that by the end of the period, the rate of fermentation must be very slow.

Grœnewege (Archief voor de Koffie Cultuur, II, 1928) suggested that a regular supply of fresh water should be allowed to enter at the top of the fermenting vat and an equal quantity drawn off at the bottom. In a recent enquiry into the methods of coffee preparation in the Dutch East Indies, by Knaus (*ibid*, III, 2, 1929) this method was reported to be very satisfactory and the whole process could be finished in 24 hours.

The installation is quite simple. At the bottom of the vat is fitted a perforated plate, through which the water containing the products of fermentation passes out. Over the top of the vat is installed a system of bamboo pipes, in which are bored small holes at the sides or in the lower surface. Into these pipes a stream of fresh water is led and this sprays down on the fermenting pile, soaks through, dissolving the soluble products and runs off at the bottom.

The amount of water required is about two-thirds of the total volume of the freshly pulped beans.

Another practice which I have seen employed on one or two estates is the addition of a barrel of the first washing water to the freshly pulped coffee. In this way a considerable addition of the necessary bacteria is made and the early

part of the action speeded up. This could also be recommended for use in fermenting Robusta coffee.

COFFEE DIE-BACK. PRELIMINARY REPORT:—

Toward the end of March 1929, Dr. Coleman suggested that in view of the number of reports of Hot Weather Die-back, it would be advisable to commence some investigations on this very destructive disease. In August the work was extended to include the study of Monsoon Die-back. The investigations are very far from being complete and a number of problems connected with the disease still remain unsolved. The following comprises a report of the progress so far made.

Characteristics and Symptoms.—Die-back is a disease of the smaller branches which appears in the Hot Weather and in the later part of the Monsoon. It is characterized by a wilting of the young apical leaves, followed by the appearance of black areas on the wood. These black areas spread until eventually the whole of the green wood is involved, the twig dies and the young leaves dry up and fall. Sometimes, though not always, numbers of small pustules whose colour varies from pink to black, may be seen on the blackened wood. It is very rare, however, for a branch with several pairs of mature leaves to be attacked.

Similar diseases have been described from various coffee growing countries, but the opinions as to the cause vary considerably. The disease met with in South India appears to be very similar, if not identical, with that described by Small from Uganda but it differs in several particulars from the so-called Physiological Die-back found in Kenya.

Attacked twigs are scattered indiscriminately over the trees and as a rule in old coffee, the attack never involves the death of a whole primary. In young coffee, where a primary may possess only a few secondaries, the whole may be killed.

The work carried out so far consists of field observations together with some laboratory work.

Field Observations.—Areas suffering from Die-back on a number of estates have been visited and observations have also been made on coffee at the Experimental Station

where the disease appeared toward the latter end of the monsoon.

The conclusions from the field observations are that the condition of the coffee is of the first importance in determining the incidence of the disease. In every case, some factor in the environment or in the history of the trees has resulted in weakness. Of the environmental factors, soil, aspect, shade and liability to Leaf Disease appear to exert an influence on the appearance of the disease, while under historical factors may be mentioned the amount of crop borne on the trees previously and the amount of blossom or the amount of crop on the trees at the time of the attack.

Aspect.—In the case of Hot Weather Die-back, eastern facings appear to suffer worse than western ones, though the difference is not very strongly marked. This may be due perhaps to the dry winds from the east to which the former facings are exposed. In the case of Monsoon Die-back no difference was observed between different facings.

Soil.—Practically all the Die-back seen was found on coffee growing on stony ridges or on otherwise poor soil. In one case where the attack was particularly severe, the estate had been starved for many years.

One set of observations made on an area at the Experimental Station show the effect of soil very clearly. This area consists of a band of coffee on a gentle slope, the upper part tailing off into a piece of poor grassland. The trees were examined for Die-back and the severity of attack estimated. The figures obtained are shown below.

Die-back and Soil Conditions.—

	A	B	C	D	No. of Plants
Section I. Plants in lower portion	28%	45%	23%	4%	150
" II. " " "	19%	48%	30%	3%	131
" I. " upper "	5%	26%	41%	28%	144
" II. " " "	6%	17%	47%	30%	126

A, B, C, and D are classes based on the severity of the disease, Class A being least severely attacked.

In this area, even a casual inspection of the soil shows how rapidly it deteriorates as one walks up the slope. The results are complicated, however by the shade factor, for the shade is consistently lighter in the upper portion as compared with that in the lower.

Shade.—Lightly shaded coffee seems to suffer more from the disease than the more heavily shaded areas. The area at the Experimental Station mentioned above was examined with respect to shade density by means of sensitized paper, according to a method suggested by Taylor in the *Tropical Agriculturist*, July, 1929. Owing to the heterogeneous nature of coffee shade the method can give only the roughest indication of the density. The results in ten out of twelve plots, 7 trees square, which were tested, showed that the areas with more than 50 per cent. of the trees badly attacked (Classes C and D above) had lighter shade than those with less than 50 per cent. in the badly attacked classes. Since the areas with lighter shade were also those with the poorer soil it is impossible to separate in these results the effects of the two factors. In other areas, however, where the soil was more homogeneous, the more severe attacks under light shade were noticeable.

Liability to Leaf Disease.—It has already been pointed out that Die-back is rarely to be found attacking branches with several pairs of leaves, so that it seems likely that any agency causing defoliation would be a predisposing cause of attack. As the defoliation by Leaf Disease reaches its maximum toward the end of the Cold Weather as can be seen from the results of the work on the seasonal sequence of Leaf Disease, an attack of Die-back would naturally show up in the early Hot Weather when the trees are struggling to renew their leaf with much depleted resources. The importance of this leaf fall in relation to Die-back is shown by the fact that sprayed coffee rarely suffers severely from Die-back.

Heavy Crop.—A certain amount of dying back always follows a heavy crop and is usually not regarded as a serious matter, but in co-operation with other factors this may do damage in reducing the amount of potential crop bearing wood. To this type of dying back may be attributed, in part, the marked fluctuations in crop from year to year. An important factor in determining the amount of crop is the density of the shade and it may be that the greater intensity of the disease under light shade is due to the heavier crops produced under these conditions. It must be pointed out that the Die-back after heavy crop does not always show the symptoms of typical Hot Weather or Monsoon Die-back.

Amount of Spike or Maturing Fruit on the Trees.—A consideration of the times of year at which Die-back does most damage reveals one important point. Hot Weather Die-back appears at a time when the spike is reaching the end of its development and is making great demands on the tree. Monsoon Die-back makes its appearance toward the end of August when the maturing fruit has almost reached its maximum size and is making the greatest call on the reserves of the tree. Thus the two maxima for Die-back are at the times when a great strain is thrown on the tree. Moreover, if the disease were due to a strong fungus parasite, the appearance of the disease toward the end of the Monsoon becomes inexplicable for the conditions for at least two months previous have been favourable for fungus development.

Thus, the heavier the spike in March and April and the fruit in August, the more liable would the trees be to bad attacks of Die-back. It seems that Die-back is rarely reported as serious in years of light crop, e.g., 1928.

Laboratory Work.—Attempts to isolate a fungus from diseased twigs were commenced in April 1929. In the first series, three fungi were obtained: a *Cladosporium*, a *Pestalotzia* and a *Glæosporium*.

In September, further isolations gave a *Fusarium* and a *Glæosporium* while a third set made in February gave only the latter.

In September and in February a number of diseased twigs were washed in 1 per cent. Mercuric Chloride and kept in sterilized dishes in the laboratory.

Every twig in the series set up in September showed the development of pink to black pustules on the diseased parts and these pustules all bore spores of the *Glæosporium* type.

Out of 41 twigs enclosed in the damp chambers in February, 37 showed pustules of the *Glæosporium* type after 7 days.

The evidence thus shows that a fungus of the *Glæosporium* form is very constantly present on Die-back twigs. There appears to be no difference in character in the fungus isolated from Hot Weather Die-back and that from Monsoon Die-back.

The fungus is identical with that described by Small from Uganda. After about twelve to fourteen days, in 8 out of 11 isolations a type of fructification referable to the genus *Glomerella* was developed, and the spores formed in this fructification gave rise to a growth in no way different from that obtained from direct isolation and which produced typical *Glaosporium* spores.

Microscopical Examination of Diseased Twigs.—Free hand sections were cut of diseased twigs. There was some difficulty in obtaining good sections as, owing to the disintegration of the tissues between the wood and the cortex, the parts broke away in cutting. It was possible, however, to make out the presence of fungus hyphæ in the cortical tissues (between the wood and the epidermis) and also in the pith. Sections through the pustules showed that these consisted of a mass of fungus hyphæ in the layer just beneath the epidermis. Above this the epidermis was broken exposing a layer of cylindrical spores borne singly on the ends of upright hyphæ. In some cases long dark spine-like hyphæ were found inter-mingled with the pale spores. The latter structure is that of the form genus *Colletotrichum* but in this case the distinction between the two types, *Glaosporium* and *Colletotrichum* does not hold good.

The spores germinate readily in water in two hours. The germ tube grows out, unbranched and eventually forms a dark rounded body—an appressorium—from which no further growth takes place. The formation of the Appressorium seems to be initiated by contact, either with the glass slide or with the surface of the drop of water.

Inoculation Experiments.—The first inoculation experiment was set up in the nursery in the middle of May 1929. Inoculations were carried out with spore suspensions of the three fungi isolated in April according to the following plan:—

1. Inoculations on the top internode
of twig .. 8 inoculations.
2. „ „ pair of leaves .. 8 „
3. As in 1, but with the removal of all
but the top pair of leaves .. 8 „
4. As in 2, but with the removal of all
* but the top pair of leaves .. 8 „

A series of this type was set up for each of the three fungi, while an equal number of plants were left as controls, half of which had one or more branches partly defoliated in the same way as the inoculated plants in series 3 and 4.

No signs of the disease were visible up to the end of May and owing to my illness, no further examination was made until July 3rd. On this date one of the partly defoliated plants in the *Glæosporium* series showed typical signs of Die-back. This infected twig was taken into the laboratory and sections were cut. They showed the presence of typical pustules of the type already described. The attempt at re-isolation of the fungus was unsuccessful on account of the excessive contamination by moulds.

A second very small series of inoculations was set up in November on young plants in pots. Four plants partly defoliated were inoculated with a *Glæosporium* spore suspension and four with a *Fusarium* spore suspension. The inoculum was placed on a leaf scar and the plants covered with glass jars. Four plants were left as controls. Owing to my tour programme I was unable to follow up this series. On my return one plant had died in the *Glæosporium* series but there was no sign of this fungus in the dead tissues.

A third series on nursery plants was set up on March 1st, 1930, using as inoculum a suspension of *Glæosporium* spores. Ten twigs on some old nursery plants were defoliated, two leaves at the apex alone being left, and a small wound made at the top of the last internode on which a drop of spore suspension was placed. A further ten twigs were similarly defoliated but the inoculation was done on the under side of one of the two remaining leaves. At the end of a fortnight one of the plants inoculated on a wound showed typical signs of Die-back; the others remained healthy.

At the same time inoculations were carried out on cut twigs suspended with their cut ends in water, inside a bell jar. These twigs were defoliated as in the previous experiment. Six twigs under one jar were inoculated with a suspension of *Glæosporium* spores, three on leaves and three near the apical bud. 15 days later one twig in the series developed Die-back, the diseased areas showing signs of pink pustules. This twig had been inoculated on the

under side of one of the leaves. In the control series, however, where no inoculations had been carried out, one of the twigs also developed the disease in spite of the fact that all of the twigs had been previously washed in 1 per cent. Mercuric Chloride and the Bell jars disinfected before the experiment began. The *Glavosporium* was successfully re-isolated from the diseased twig in the inoculated series.

Further work has been suspended pending the completion of the damp chamber.

The results of these inoculations give no information beyond a suspicion that under certain conditions, the *Glavosporium* probably plays some part in the initiation of the disease.

Conclusions.—It is of course too early to draw definite conclusions, but the results of the field work indicate lines along which control measures can be directed.

In addition to soil amelioration and shade regulation, I am of the opinion that well pruned coffee will suffer less from Die-back than coffee which is allowed to prune itself. The amount of normal dying back due to over-cropping should be reduced if old wood which is no longer productive yet still using food materials is removed, while the presence of dead and dying wood due to over-cropping offers a foothold for the fungus from which it might spread to living wood.

In view of the effect of spraying in reducing the leaf loss due to Leaf Disease, this operation also exerts a very favourable action against Die-back. This action is mainly indirect through the protection afforded against Leaf Disease. In general the times and methods of application should be as for Leaf Disease.

There does not seem any need for the considerable alarm raised some time ago with regard to this disease. It is very rarely generally distributed throughout a whole estate and where it occurs there is usually some environmental factor involved, which attention to cultural practices will ameliorate. Neglected and unmanured estates sometimes suffer severely, particularly in a year when climatic factors have been favourable to large blossom and big crops.

BLACK ROT (*CORTICIUM KOLEROGA*). TRANSFERENCE EXPERIMENT:—

During the Monsoon of 1928, a number of leaves suffering from Black Rot were placed in boxes, the tops and bottoms of which were replaced by a fine mesh wire netting. These boxes were left lying in the coffee during the whole of the year and on July 26th, 1929, the old dead leaves were taken out and clipped on to healthy leaves. In all thirty old leaves were fastened to thirty healthy leaves.

On August 9th three leaves showed the beginnings of an attack of Black Rot, a direct hyphal connection between the fungus on the old leaves and that on the newly attacked leaves being traceable.

Several other leaves showed the first symptoms of the disease but no connection was visible.

This experiment was started by the Station Manager, and after his departure I completed the work in 1929. The experiment is to be repeated in the coming year.

A microscopical examination of the fungus hyphæ on the old leaves after the rains had commenced, showed the presence of young colourless hyphæ growing out of the old brown fungus threads left from the previous year.

These observations indicate one of the means at least by which the fungus causing Black Rot can survive the dry weather. They support the practice of burying mulch in areas suffering from this disease.

An interesting observation made during the Monsoon showed that the Black Rot fungus can spread for short distances on to *Grevillea* leaves, so that infected coffee leaves and fruit may become quite firmly attached to them. In view of the tough nature of *Grevillea* and the ease with which they can be caught up in the branches of coffee trees, they might also serve as a means of preserving the fungus. The fact suggests that keeping the trees clear of a deposit of leaf of this kind is likely to be beneficial.

ROOT DISEASES:—

Practically all the attention paid to Root Diseases during the year has been restricted to field observations on the types and distribution occurring in coffee estates in South India.

There seems no doubt that *Fomes lamaensis*, the Brown Root Disease, is the most widespread cause of death from Root Rot. It has been encountered in a greater or less degree on a large number of estates in Mysore, Coorg, Shevaroy's and Nilgiris. It is generally a true stump rot, spreading from old and rotting stumps, but in the Shevaroy's it appears as if it were a spore borne disease. Here, unlike the majority of Root Disease areas examined elsewhere, the attacked trees are scattered here and there, usually near a jungle edge and apparently without any relation to dead stumps.

According to Petch (Diseases of the Tea Bush) this disease spreads by contact of diseased roots with healthy ones and not by a free growth through the soil. Therefore it seems unlikely that soil treatment will have any marked effect as long as there is an ample supply of dead wood in the soil. The eradication of dead stumps in areas where this disease appears as a true stump rot is the only adequate means of control at present available.

In the cases where the disease does not appear as a true stump rot as in the Shevaroy's, some other mode of treatment is necessary. The possibility of spore infection by *Fomes lamaensis* has been recognized in the case of Tea, Rubber and Mahogany. In the case of Rubber in Malaya, *Fomes* does more damage by the attack of branches, causing a decay of the branch forks, than it does as a root disease, while in the case of Mahogany in Java it was found that trenching was quite inadequate for controlling the spread of *Fomes* as a root disease and the application of a fungicide to the collar was recommended.

The probability that we also have to do with a spore infection in the case of attacked coffee in some parts of the Shevaroy's is further supported by the fact that in many of the cases inspected, the trees showed the presence of large snags near the ground level, often with rotting centres.

In places where root disease occurs, it is advisable to tar or otherwise protect large cut surfaces such as arise in the course of stumping. A further measure likely to be of value is the painting of the tree collars with a fungicide—Carbolineum or Bordeaux mixture paste.

It may be remarked that *Robusta* is by no means immune to this disease.

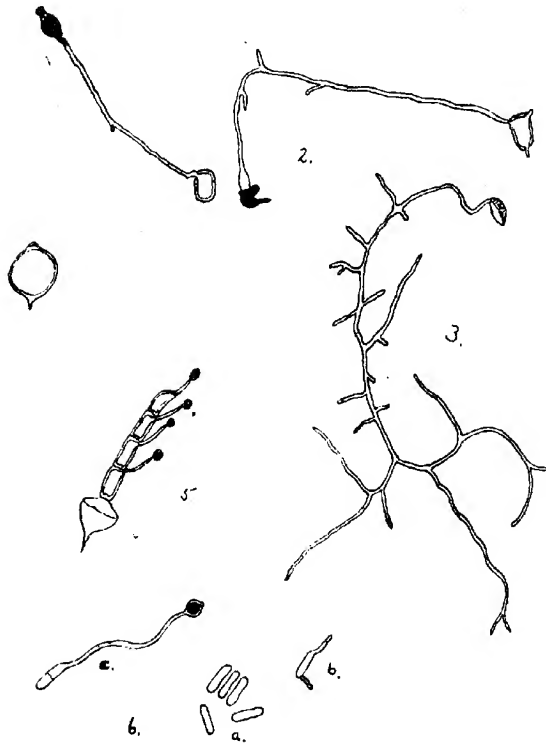
The second important disease is *Rosellinia arcuata*, though it is far less general than *Fomes* as far as coffee is concerned. It is almost always a true stump rot, spreading very rapidly from old decaying stumps and as it spreads readily through the soil, it may do much damage. At present, the uprooting and destruction of the stumps and the isolation of the attacked areas by deep trenches seem to be the most satisfactory control measures. According to Petch, the fungus travels most rapidly in the top two or three inches of the soil, particularly in the presence of quantities of dead leaves and twigs. The disease patch should therefore be cleaned up to expose the bare soil and the dead leaves burnt. It would also be advisable to clear the surface of the soil on the outside of the trench for some distance but this should be done with different tools from those used for work on the inside of the trench. All tools used in dealing with root disease areas should be dipped in Bordeaux mixture after use. In the case of this disease the destruction of the stumps is important for they are often covered with the spore producing bodies of the fungus, and if these are left the spores may play a part in the further dissemination of the disease.

The experiment on the transference of this disease, recorded in the previous year (U. P. A. S. I. Proceedings. 1928-29) showed one success out of the twelve infections started. The fungus in this one case spread from a piece of infected tea root to the young coffee plant and killed it within a period of three months. The failure of the remainder was probably due to the original rather poor development of the fungus on the pieces of infected root which were buried in the soil.

Of other root diseases, mention may be made of the presence of a fungus fructification of a type previously reported as causing a root disease of coffee, on a dead *Gracillca* standing in an area in which a number of coffee trees had died, though none dead trees were present at the time of inspection. The fungus belong to the genus *Irpecr.*

A detailed examination of a number of young plants which had died in an area at the Experimental Station was made in May, June and July. Fungi were present in most

cases but they were of very varied types and there was no evidence that these fungi were the primary cause of death. The result of the examination suggested that death was due to physiological causes, incident on the late planting of old bed plants.



1. & 2. GERMINATED SPORES OF *HEMILEIA VASTATRIX* WITH "APPRESSORIA."
3. THE SAME WITHOUT APPRESSORIUM.
4. RIPE TELEUTOSPORE OF *HEMILEIA*.
5. GERMINATED TELEUTOSPORE, WITH 4 SECONDARY SPORES.
6. SPORES & GERM TUBES (b & c) OF *GLOEOSPORIUM* FROM DIE-BACK.

COFFEE LEAF DISEASE. (*HEMILEIA VASTATRIX*). SPORE GERMINATION :—

A study of the germination of the spores of Coffee Leaf Disease (*Hemileia vastatrix*) was commenced during the year.

The first attempts at germination both in hanging drops of water and of sucrose solution on glass cover slips all failed to give any result.

Eventually it was found that some germination could be obtained in films of water on glass slides enclosed in dishes. The highest percentages obtained were only 10 per cent. In view of this small success it does not appear likely that the germination of spores on glass slides will be of any use for the study of the toxic action of fungicides.

The germination which was obtained supplies one or two facts of interest. According to Marshall Ward, germination takes 24 hours while Burck states that spores germinate in a few hours. In my experiments germination never occurred in less than six hours and often was delayed until over 24 hours. Of course, it is more than likely that germination is more rapid on the leaf surface, but a very slow germination might be of importance in explaining the reduced rate of increase of the disease during periods of continuous rain when the spores might be washed off by the rain.

In the films of water two types of germination were obtained. In one, the germ tube grew out a short distance without branching and then swelled up at the tip into an irregularly shaped appressorium which was usually provided with a short "beak." The orange yellow contents of the spore passed into the appressorium and no further growth took place.

In the other type, the germ tube grew out and branched freely in all directions. The spore contents passed out to the tips of the branches but no appressorial swelling occurred. Intermediate cases between these two types were found in which a little branching occurred before an appressorium was formed.

This phenomenon has been recorded before, the latter type without appressoria occurring on leaves kept continuously wet while the former appear when there is a gradual evaporation of the water. In my experiments both types

were found in the same drop, no doubt due to the position of the germinating spore with respect to the surface of the water.

This fact may also have a bearing on the slow rate of increase during the Monsoon.

Experiments to test the germination on coffee leaves are planned for future work.

Teleutospores.—The second type of spore formed by *Hemileia* was found in the centres of old brownish pustules during March 1930. This is the teleutospore, the further history of which is so far unknown. They appear to be formed in quite appreciable numbers on old pustules.

They germinate in situ and in the spore suspensions, all stages from the unripe spore to the germinated spore with its four secondary spores were found.

Ripe spores germinated in water but the germ tube is much longer than those found on spores which have germinated in situ and no secondary spores were found on them.

INSECT PESTS:—

The following notes record the more important pests which have been reported during the year or on which observations likely to be of value have been made.

Green Bug.—This pest continues to give trouble here and there, usually only in certain fields or in small areas, though in the Nilgiris, I was much impressed by the seriousness of this pest. Spraying with Fish Oil, Resin Soap if carried out promptly and repeated when the bug shows signs of increase, is an effective remedy but is rather expensive.

In the Nilgiris, where the rainfall is well distributed, I was surprised that the black fungus (*Empusa lecanii*) had not exerted a greater influence in checking the bug. At the time of my visit in January, it is true that the fungus was well established but not before considerable damage had been done. This seems a district in which the artificial spread of this fungus might be of use, if carried out as soon as material can be found. This can readily be done by taking leaves with attacked bugs on them and fastening them on to trees where the fungus has not appeared.

Attempts to gather data on the soil conditions in Green Bug attacked areas have been pursued but with no marked

results as far as differentiation of susceptible and non-susceptible areas is concerned. No case at all resembling the instance recorded last year with respect to Root Mealy Bug has appeared.

Banding against Ants.—In response to a suggestion of the Indian agents for "Ostico," a proprietary banding mixture, that this preparation might be of some value in dealing with Green Bug by discouraging the attentions of ants, an experiment was set up on Gungagiri Estate by kind permission of Mr. G. V. R. Frend, to whom my thanks are due. About 500 young plants in an area liable to Green Bug were provided with bands of grease proof paper about 3 inches wide, on which a quantity of "Ostico" was spread. Observations on the incidence of Green Bug were then recorded, similar observations being made on another 500 plants which were left untreated as controls. This was carried out at the end of February 1930. The second observations will be made in the early part of the coming year.

It may be said at once that this mode of treatment, if successful, would be of little use in old coffee as it would involve the necessity of banding everything by which ants might get up into the coffee and the cost would be prohibitive. In young clearings where it would be possible to keep the majority of the plants from contact with "alternative routes," banding might have a good effect at a reasonable cost. The results of this experiment will be dealt with in a later communication.

My thanks are due to Messrs. Wilkinson, Heywood and Clarke of Bombay for the supply of sufficient "Ostico" and banding paper free of charge for the purposes of this experiment.

Tailed Mealy Bug—(*Pseudococcus virgatus*).—In May 1929, specimens of a mealy bug were forwarded to me from an estate in Coorg, with the information that it had appeared on a small area of coffee and was increasing at an alarming rate. The bug was tentatively identified as *Pseudococcus virgatus* and this was confirmed by Dr. Kunhi Kannan, Entomologist of the Mysore Agricultural Department. This bug is quite widely distributed in India and has occasionally been found on coffee, though Bainbrigge Fletcher in "Some South Indian Insects" does not record it as one of the hosts.

As far as I have been able to trace, it has never before appeared on coffee in South India with the virulence of this attack, which, though restricted in area, was very severe.

At the time of the attack, the informant mentioned that the bug appeared to come down from the "wattles" which were present in the area. These trees were later identified as *Leucaena glauca*, or Lamtoro, a leguminous tree which has recently come into prominence as coffee shade.

In Java this tree is well known as coffee shade and there also it acts as a host plant for the same Mealy Bug which is accordingly known there as the "Lamtoro Luis." This character of the tree should be borne in mind by planters who are contemplating the use of this tree as shade.

A careful watch should be made for the first appearance of the bug on the *Leucaena glauca* and prompt action taken. Dr. Begemann of Java recommends the flaming of the branches with a torch, the trees apparently sustaining little damage.

If it has already spread to the coffee, spraying with Fish Oil, Resin Soap is to be recommended.

It is difficult to explain the sudden appearance of this outbreak on a small area of coffee in this particular year. In Java the pest is apparently more severe in the drier years, but the Hot Weather of 1929 was not noticeably drier in the coffee districts of Mysore and Coorg. In Mysore it was wetter than usual.

The Monsoon afforded a satisfactory check and I understand that little bug managed to survive the first month. So far, I have heard no further report of any recurrence.

It may be remarked that this bug does not appear to be attended by ants, either in this case in South India or in Java. In this it differs markedly from the Common Coffee Mealy Bug (*Pseudococcus lilacinus*), of Kenya which has not so far made its appearance in India.

Cockchafer.—Reports of this pest have been received from Coorg and the Shevaroyes while one doubtful case of its presence has been reported in the Bababudans. It is proposed to take up work on this pest as soon as specimens of the grubs are available.

As a tentative suggestion, a thorough digging over of the cockchafer areas during the Monsoon and the collection of the grubs turned up is recommended.

Shot-hole Borer.—*Xyleborus spp.*—This pest is very general on Robusta and is to be found wherever there are plantings of this type of coffee. Shade appears to be a factor of some importance in the life of this pest. Under heavy shade the pest is favoured. Many areas of Robusta examined showed that suckers and lower branches shaded by the upper parts of the trees are more attacked than the exposed parts. Careful attention should therefore be paid to removing suckers and the overhead shade should be kept as thin as possible consistent with the health of the coffee.

The reduction of the shade will also encourage the formation of stouter wood and the better development of secondaries, both of which are of value in reducing the damage done by this pest.

Cut Worm.—This is a very occasional pest to which my attention has been called once or twice. In the field it can be readily controlled by means of paper shields. A piece of stout paper is made into a cone around the stem of the young plant, the apex of the cone being a short distance above the ground level and the base buried an inch or two in the soil. This has been found very effective where the pest has appeared and is quite cheap.

In the nursery, Cut Worm is probably more readily treated by scattering poison bait between the rows of plants.

The following is a formula for poison bait suggested by S. S. Light in the *Tea Quarterly*, 1-1-1928:—

- 1 lb. Copper Arsenite.
- 25 lbs. Bran.
- 3½ lbs. Jaggery.
- The juice of 2 or 3 oranges or limes.
- 1 gallon of water.

The jaggery is dissolved in hot water and the fruit juice added. The bran and Copper Arsenite are mixed in the dry state and then worked up into a mash with the solution of jaggery. The bait is put out in small heaps between the rows of the plants in the nursery.

PESTS OF SHADE TREES:—

Ringer of Dadap—(*Sthenias grisator*).—A serious pest of *Erythrina* shade on one estate in the Nelliampathies was observed. The damage was due to a borer living in the pith of the branches. The larvæ found in the branches were identified by the Entomologist of the Mysore Agricultural Department as *Sthenias grisator*. In the Nelliampathies, I did not see any signs of ringing, the main damage being the boring and subsequent death of the branches.

The life history of the beetle is not known and the only means of control that can be suggested at present is the collection of the beetles and the burning of all attacked branches.

An unidentified pest of Dadaps was seen in the Nigiris. The symptoms were the presence of small wet spots on the main stem and the larger branches, usually where some injury had occurred. The tissues were soft and wet and in the mass of rotting tissue, numbers of small white larvæ were observed.

Cutting out of the diseased areas and the tarring of the cuts seemed to give some control.

WORK IN PROGRESS:—

The following lines of work have been taken up in addition to those already noted but as yet work has not proceeded far enough for any results to be reported:—

Leaf Fall and Fruit Loss.—A series of detailed observations were commenced in February on 60 crop bearing branches of 8-12 internodes, 30 sprayed and 30 unsprayed. Records of leaves, Leaf Disease, new shoots and spike (and later on, fruit) are being made at fortnightly intervals. It is hoped to obtain information on the length of life of leaves, factors causing leaf fall, relation of Leaf Disease to leaf fall, time and amount of fruit loss and the causes thereof. Other features may crop up in the course of the observations and data are being recorded so that the history of each individual leaf can be followed. Five observations have been carried out up to the end of the year and it is hoped to continue them for two years.

Pollen Studies.—Preliminary work on the germination of pollen in water and sugar solutions was commenced at the end of the year in order to gather data which may be of use in the breeding work. Studies on pollen preservation are also to be undertaken.

Bibliographical.—Lists of literature connected with coffee cultivation, preparation, diseases and pests and related subjects have been commenced and will be added to from time to time.

CORRESPONDENCE:—

200 letters have been received and 180 despatched during the year. The range of problems raised is very great. Spraying claims the greatest number of enquiries.

MEETINGS:—

Meetings of the Coffee Advisory Board were attended on May 22nd, October 1st and March 15th.

An outline of the work in progress was given at a meeting of the Shevaroy Planters' Association on December 19th.

ACKNOWLEDGMENTS:—

I should like to take this opportunity of expressing my thanks to all the planters whose hospitality I enjoyed during my tour and who assisted me greatly in many illuminating discussions.

To Dr. Coleman and the members of the Mysore Agricultural Department my debt is very great for constant assistance and advice.

W. WILSON MAYNE,

Coffee Scientific Officer.



SIDAPUR COFFEE EXPERIMENTAL STATION REPORT.

I have to acknowledge with thanks the report of activities at the above Station.

The consistent failure of Hall's hybrid plants to set any appreciable amount of seed when self fertilized is a matter of some interest.

The self-sterility of hybrids is a well-known fact in breeding practice and the phenomena observed in connection with Hall's hybrid is probably of this nature. The sterility is not a question of disease but is intimately related to the structure and physiology of the germ cells.

The utilization of the good qualities of hybrids of this nature can only be approached by crossing with other types, from which crosses it might be possible to get seed by self-fertilization.

It may be remarked that the Hall's hybrid which came to the Balehonnur Coffee Experimental Station failed completely.

GHATTAD HULLA ESTATE,

14th November, 1929.

SIDAPUR COFFEE EXPERIMENTAL STATION.

Since we took over this Station, the usual cultivation works have been carried out, *viz.*, Weeding, Chop Digging, Manuring and Forking. The spraying series were sprayed in May with a 1 per cent. solution of Bordeaux Mixture, and as per programme Plot 23-A is being done this month.

Manures applied were:—(1) Lime and Bone Meal, (2) Coffee Fertilizer 2 tons, (3) Muriate of Potash in two plots.

An experiment was made with the Hall's Coffee. Three or four trees were netted to prevent cross fertilization during

the last blossom. The trees were kept under daily observation and although it was noted that the crop set quite satisfactorily, most of the berries gradually fell off later, and at present only one or two berries can be seen. The trees appear perfectly healthy and have put on good leaf and wood. Plants not netted have a certain amount of crop.

It would be very interesting to learn the Coffee Scientific Officer's opinion on the subject. I must add that I have carefully searched for any sign of disease without success. The plants are planted in two rows about 6 by 6 feet, and have Robusta on one side planted on 2nd August, 1922, and 'Newcome's Marigogippe' on the other. The Halls seeds were obtained from the Deputy Director of Agriculture in 1922 and put down on 2nd August 1922. In 1924 Halls plants produced spikes and next year gave some crop. Some seed was sent to the Mysore Coffee Experimental Station in 1925. The Station reports for 1923/25 state: "of the varieties planted the Halls plants looked the best and have retained all their old leaves."

In 1925 there occurs the entry "During the blossom time two of the best grown Halls plants No. 9 and 12 were bagged (netted) but No. 12 failed to set any crop at all. No. 9 (the other plant) set a few fruits which were picked separately and supplied to the new Coffee Experimental Station in Mysore. Halls No. 3 and 4 (2 plants) which were not bagged in had set a fair crop and the whole crop was picked separately and supplied to the new Coffee Experimental Station in Mysore. During 1925 blossom (assumably the following year) Halls No. 4 and 9 have again been bagged in and No. 9 has completely failed to set any crop, and whereas No. 4 has set the crop well."

The reports end there, and assumably no more netting was carried out until last blossom (1929-30). In 1928-29 all the Halls had a fine blossom and yielded a very good crop, but you will perhaps recollect that the seed sent to you was found to contain a very high percentage of light berries, practically every bean was light.

The Station buildings have been regularly seen to inside and out and surrounds have been kept free of weeds, etc.

The outhouses attached to the higher Bungalow (adjoining Fairlands) collapsed during the last rains. They were merely constructed of mud and thatched.

Shade.—Much attention was given to permanent shade and this has been considerably improved.

(Signed) J. BRUCE GILLON.

NOTE ON REPORT.—The Coffee generally has improved, and is looking well and carrying a good crop.

P. G. TIPPING.

UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA
SCIENTIFIC DEPARTMENT.

ADMINISTRATION REPORT

OF

The Rubber Experimental Station
For the Year 1929-30.

I assumed charge of the Station from Mr. Ashplant on the 10th February 1930.

During the period under review (5 months) it will be realized that for the short time I have been in charge little more could be attempted than ensure the continuity of existing Laboratory and Field Experiments already in hand.

Staff.—This has remained the same as the previous year.

Buildings.—All the Station Buildings have been overhauled and put in a state of good repair. Other than small alterations to two of the Buildings, no new Buildings have been erected.

The house of the Second Indian Officer has been altered to accommodate two married Assistants, and a small Bathroom added. A small Kitchen has also been attached to the Writer's House.

The three-roomed Line housing the Laboratory Assistants has been renovated and altered slightly to give more privacy between the rooms. The mud-floors have also been replaced by cement.

Bungalow.—Messrs. Pinches and Lescher visited the Station on the 18th February for the purpose of reporting on the Buildings as a whole. In regard to their remarks on the Bungalow, I feel I must candidly express my disagreement. During the period I have occupied the Bungalow my observation faculties have not been lacking. In the report it was stated the materials used in this Building were sound and the construction work excellent.

As regards the Ground floor foundation and walls, I think they may be considered fair. In the upper storey, however, the materials used are anything but sound, and the

construction work the reverse of excellent. In this connection I would refer to the Administration Report of this Station for last year when it was found necessary to effect most extensive replacements of timber, etc., the total cost exceeding Rs. 2,500.

This year it has been found necessary to replace the whole of the floor of the right-hand upstairs Bathroom with new rafters, and floor-boards. I considered Teak was the only timber which could be profitably used. Although initially it is expensive it will prove to be cheaper in the long run, owing to the very poor quality of Laterite used for the walls which are ravaged by white ants.

A frequent inspection of the roofing timber has to be made, and the whole thoroughly treated with Brunolinum twice yearly, consuming approximately 20 gallons at a cost of Rs. 3-12-0 per gallon.

I regret being compelled to express at length the deficiencies of this Building, but I consider it important to do so in view of the necessary heavy recurring expenditure. Finally it is my strong opinion that this will always be excessive unless the timber is entirely replaced with first class Teak-wood.

Aneikulam Station.—The routine field work in connection with the 87 Acres has been rigidly adhered to in every respect.

Spraying.—This was commenced on the 1st April, and the whole area completed on the 29th May.

If it could have been anticipated that the excessive rain in May would have so greatly hampered the Spraying operations, these would have been commenced earlier. The later spraying can be delayed, verging on to a normal Monsoon year, the greater its effectiveness. Thereby all new leaf growth following upon the normal leaf-fall is incorporated. Unfortunately however as regards meteorological conditions we are still largely in the "lap of the Gods."

However, despite the unfavourable rains the spraying was successful, and the result outstanding which is evidenced when compared with the surrounding country-side. In fact it may be said that the Station stands out as a landmark for miles round.

It cannot be too often emphasized that the efficacy of spraying is not so much dependent upon the strength of the Mixture as the amount of solution used, coupled with thoroughness of application.

It may be thought that this spraying was given extra special care, but I wish to disillusion the minds of those who may think so. Outside careful supervision, no extra precautions were taken which are not compatible to Estate practice.

Estates which enforce a daily spraying task, and limit the amount to be applied, are courting failure. Spraying should be adjudged on no other factor than the amount of foliage carried, and if this is seriously considered no other conclusion can be arrived at. It may be said (metaphorically speaking) that those who limit 2 to 2½ gallons per tree (irrespective of foliage) coupled with a minimum daily number of trees per Sprayer, might just as well throw 75 per cent. in cash of the total cost per acre in the Estate drains, for all the good effects such methods can have.

The extent of physiological damage to the tree engendered by *Phytophthora* year after year apart from the very serious defoliation, is not fully realized. That it has very marked effects, there is no possible doubt.

This fact is fully borne out by the progressive annual increased yields on the Aneikulam Station, which can be attributed to no other cause than efficient spraying.

It will be of interest to note the annual yields since spraying was introduced:—

Years.		Lbs. per acre. % increase.
1925-26	::	121'25
1926-27	..	212'70
1927-28	..	288'40
1928-29	..	329'05
1929-30	..	354'63

Total increase .. 292'30 per cent.

True Blocks No. 11 and 14 have been manured, but it is impossible for this to have any material effect on the yield as a whole. It is fully anticipated that the yield for 1930-1931 will exceed 400 lbs. per acre in average, despite the fact that thinning out operations in May-June of this year has reduced the total Stand from 7,800 to 6,000 trees, or 23 per cent.

240 Trees.—The usual records of these trees have been maintained. Regular daily yield measurements were taken and recorded, and Abstract Crop Accounts prepared. The annual examination of Bark samples of all the 240 trees has been completed and the Rings counted. Likewise all Girth measurements have been taken and entered.

Tube Bore measurements have also been made of several of the high yielders in the 87 Acres.

Fungicide Experiments.—A visit was received in April from a Representative of a Firm in Ceylon who have recently put on the Indian market a Fungicide by name of Candarsan. These manufacturers make strong claims for this Mixture as being a preventative of Stripe Canker, Patch Canker, etc., and the excellent results obtained by its use in Rubber Estates in Ceylon.

Noting its comparative low cost as compared with other well-known fungicides, led to the laying down of comparative experiments this Monsoon with a view to testing its efficiency. These experiments are now in progress, it being too early to make any comments upon them at present. It is, however, proposed that these should be the subject of a separate note at a later date.

It is regretted that it is impossible to enlarge on the Experiments in progress on the Aneikulam Station in the absence of the full Report of Mr. Ashplant. He having initiated these Experiments which are proving so valuable, and fostered them for so long, it is only reasonable to assume that the publication of any subsequent results prior to his report would have no real significance. Mention should also be made that Mr. Ashplant promised before leaving the Station that after his arrival Home, and his health improved, he would write up a full detailed report.

STATION.

Field Work.—On taking over charge, field work in progress being of a minor character, opportunity was taken of clearing up the Grounds in general, repairing roads, and paving drains. The latter being essential on account of the steepness of the land, serious erosion of the roads have occurred during the previous Monsoon.

Spraying.—All the Station Clones including the 1927-1928 and the 1928-29 Nurseries were sprayed after the completion of the Aneikulam Station, excellent weather prevailing up to the middle of June.

Budwood.—It was recommended by Mr. Ashplant (and one or two Estates had booked before I assumed charge) that a certain amount of Budwood from the Station Clones should be made available to Estates. Representation was made to the Executive Committee (on Mr. Ashplant's recommendation) that a small fee per yard should be charged. This was agreed to, and all Estates were circularised that Budwood was available.

The result was extremely disappointing. Outside those who had previously booked, very few Estates availed themselves of the opportunity.

EXTRA LAND.

It is very disappointing to place on record that no very material advancement has been made in acquiring an extra 50 Acres of land of the Reserve Jungle adjoining the Station. All available space on the Station has now been p'anted up. Valuable time is being wasted. The Station Clones must be multiplied before any of these can be certified and this requires space. The situation is at present a case of "Stale Mate".

STATION CLONES SEEDLING.

The number of Clones and Seedlings at present
on the Station is 1,637 up to July 1930.

Source of Origin.	Original 1921 Nursery.	Clearings.				Total.
		1923.	1926.	1927.	1928.	
STATION.						
Seedlings selected on						
Tube Bore ..	23	57	4	329	411	824
Station Nursery ..	13	15	7	14	..	49
Total ..	86	72	11	343	411	873
CLONES.						
Malayalam Plantations :						
Mundakayam Estate ..	3	55	3	..	..	61
Mooply Valley Estate ..	..	1	12	29	..	42
Koney Estate ..	..	..	..	8	..	8
Total ..	3	56	15	37	..	111
Travancore Rubber Co.						
Kadamankulam Estate ..	1	108	2	1	..	112
Aneikulam Estate ..	9	95	33	4	..	141
Manikal Estate ..	..	..	..	41	..	41
Total ..	10	203	35	46	..	294
Mundakayam Valley Rubber Co.						
Kutikul Estate ..	4	10	3	55	..	72
Redlynch Estate ..	..	4	..	..	..	4
Nenmeny Estate ..	..	5	..	33	..	38
Total ..	4	19	3	88	..	114
Yendayar Estate ..	5	19	4	21	..	49
Rani Travancore Rubber Co.						
Shaliacary Estate ..	1	..	4	44	..	49
Vellanadi Estate ..	..	15	14	56	..	85
Total ..	1	15	18	100	..	134
Pudukad Estate ..	..	..	1	..	..	1
KutMadi Estate ..	..	..	1	..	..	1
Teekoy Estate ..	..	3	..	57	..	60
Total ..	59	387	88	692	411	1,637

The above table shows the distribution of the various Clones and their origin.

Included in the above are the total supplies planted out this Monsoon ; these are as follows:—

	Budded.	Seedlings.
1927 Clearing	115	80
1928 Clearing	...	98
Total ...	115	178

Trial Tappings.—A number of trees being of sufficient girth and tappable age, it was arranged to undertake trial yield tests. Those selected all had a girth measurement at 3 ft. of over 40 c.m. The cut was made on $\frac{1}{2}$ circumference at a height of 3 ft., every alternate day tapping.

It was intended to undertake 20 tappings, but unfortunately the inclement weather experienced in May; these were stopped after the 13th. Likewise the prolonged drought of the previous four months prevented these trials being commenced earlier, and it was not until after four inches of rain had been received was it practicable to begin, the trees not being in a "sappy" enough condition. It should be mentioned that five tappings were rejected from the data obtained to enable the trees to settle down to the physiological changes set up.

Despite the small number of tappings, sufficient information was obtained to warrant thinning out 71 trees for various reasons.

BUDDINGS.

It is worth placing on record the increasing interest in this branch of Rubber cultivation, a number of Estates having already a fair acreage under proved Clones. In this direction it should not be overlooked however the importance of Estates keeping observation for possible Bud-mothers of their own. True, with the advent of budwood from proved Clones from the Dutch East Indies, we have a source of supply, but this is no argument that we should omit the search for such trees in our own territory.

It must be borne in mind that some of the best Clones in the Dutch East Indies to-day had their origin in the Federated Malay States.

Even when one considers that they have discovered a possible Bud-mother it must not be thought that all their troubles are ended. To prove that such a tree possesses the necessary characteristics means prolonged careful observation. Freedom from Brown Bast, insusceptibility to Phytophthora, are most important considerations coupled with good yielding qualities.

Further at least 50 Buddings should be made from each tree selected, and these in turn when they reach the tapping stage investigated to what extent they carry the characteristics of the Mother tree. Disappointment at the small number of such Clones which fulfil 100 per cent the qualities of the Mother is bound to be felt. The most that can be expected is one out of four.

Long and tedious as the process may be, it is worth it, and Estates are strongly recommended not to lose sight of this fact and rely solely on imported proved material.

LABORATORY.

Investigations have been carried out, and are still in progress in regard to the Technique of preparing sections for examination under Mr. Ashplant's Tube Bore Theory. This was not quite as perfect as desired.

These investigations have met with measurable success, and it is hoped in the near future to obtain an improved Technique whereby better defined Sections will render classification easier.

The Tube Bore Classification of the 1928 and the 1929 Nursery have been completed.

Besides the examination of 240 Bark samples of the Aneikulam Station, 120 were received from various Estates for Ring count.

Approximately 4,500 Petioles have been examined for Tube Bore Classification.

A number of Nursery plants have been under observation to ascertain if any change in size of Tube Bore takes place. The results obtained support Mr. Ashplant's Theory that after six months no alteration in size of Bore occurs. This is also supported by a selected number of trees on the Aneikulam Station. These trees are now 12 years old, and during the period they have been under observation no change in size of Bore has been recorded.

The recording of yield measurements of the Aneikulam Station, and the Crop Accounts have also been undertaken by the Laboratory Staff.

RAINFALL.

1930		ins.
January	..	0.72
February	..	0.45
March	..	6.21
April	..	8.77
May	..	21.78
June	..	28.60
July	..	21.13
Total ..		<u>87.66</u>

In regard to the above it is of interest to note that approximately the same amount of rain fell in May as that in the month of July. This latter month is normally the heaviest in the year, last year for July 40.11 inches were recorded.

GENERAL.

On taking over charge a great deal of my time was occupied in tabulating and co-ordinating records.

A suitable printed book in Ledger form was instituted for the valuable records of the 240 trees in the Aneikulam Station. Likewise specially printed forms were obtained for the recording of the Daily Latex Account and Abstract Crop Account of the Station, and all records of the past five years were entered, and checked. This took up a good deal of time.

Routine orders for the Station Staff were put into force for strict adherence.

Office.—Considerable time was taken up in re-organizing the office to render it more efficient. A new System of Accounts was introduced together with a new Filing System on the Roneo Numeralpha principle.

Stumps.—4,000 Stumps from the 1929 Nursery were disposed of to two Estates for budding purposes.

Tours.—Only one visit outside the Mundakayam District was made during the period under review. This was in response to an urgent call from an Estate in South Travancore. I was absent four days.

Visits.—Several visits have been received from Rubber Planters and one or two came for instruction in Budding. Two Ceylon planters also visited the Station

Staff.—Mr. T.R. Ramaier as in former years has been the mainstay of the Station as regards Field work problems, and his services are most valuable. Mr. Cheriako has remained nominally in charge of the Laboratory work and staff. Unfortunately his health has not been good for several months past which necessitated his proceeding on sick leave for a period of six weeks.

Mr. Mani, Office Writer, has proved himself most apt and reliable in his duties. On many occasions I have had the necessity of calling on him for work outside office hours, and his willingness to serve is a feature to be recorded.

G. N. FRATTINI,
Officer-in-Charge,
Rubber Experimental Station.

ACCOUNTS, 1929-1930.

THE UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA.
(INCORPORATED)
Income and Expenditure Account for the Year ended 31st March 1930.

EXPENDITURE.	Rs.			Rs.	INCOME.			Rs.	A. P.		
	A.	P.			A.	P.			A.	P.	
To Head Office—											
Secretary's Salary ...	23,150	0	0		By Subscriptions, 1929-30.	1,59,814	12	10			
Assistant Secretary's Salary ...	7,702	10	6		Tea Cess ...	57,079	8	4			
Secretary's Motor Mileage ...	437	8	0		Coffee Cess ...	10,177	7	6			
Office Establishment Salaries... ..	4,671	6	8		Rubber Cess ...	47,492	5	8			
Printing and Stationery ...	8,207	7	3		Labour Department Cess ...	2,40,273	5	2			
Kent ...	374	10	3						5,14,837	7	6
Bank Charges ...	598	5	8		By Labour Department Sundry Receipts—						
Audit Fees ...	500	0	0		Interest on Labour Department Bank Account ...	145	7	4			
Telephones and Fans ...	448	12	0		Subscriptions ...	555	11	0			
Insurance ...	118	0	0								
Depreciation ...	979	1	4								
Periodicals and Library ...	125	0	5								
Postage and Telegrams ...	635	5	6								
Provident Fund Contributions—European ...	3,285	0	0								
Provident Fund Contributions—Indian ...	382	8	0								
Passage ...	885	0	0								
Legal Charges ...	540	8	0								
				53,329	12	1			701	2	4

[illegible]

THE UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA,
(INCORPORATED.)

Balance Sheet as at 31st March, 1930.

CAPITAL AND LIABILITIES.	Rs.	A.	P.	Rs.	A.	P.	PROPERTY AND ASSETS.	Rs.	A.	P.	Rs.	A.	P.
ACCUMULATED FUND.—							FIXED CAPITAL EXPENDITURE,—						
As per last Balance Sheet.	3,82,374	7	8				Land at Cost Labour Department.—						
Add Excess of Income over Expenditure for the year as per Income and Expenditure Account. ..	59,025	7	0				Coimbatore ..	8,075	0	0			
							Palamcottah ..	2,247	8	0			
							Nagercoil ..	5,846	7	9			
							Mysore ..	5,317	0	0			
				4,41,399	14	8					21,485	15	9
RESERVE FUND.—							Buildings at Cost Labour Department.—						
As per last Balance Sheet.				1,50,000	0	0	Coimbatore 4,359 10 0						
							Additions to date ..	27,053 14 6	31,413	8	0		
SOUTHERN INDIA PLANTERS' BENEVOLENT FUND.													
As per separate statement and invested as per <i>Contra</i> ..				1,15,784	12	8	Palamcottah ..	28,888	14	9			
							Nagercoil ..	14,153	8	3			
							Mysore ..	24,495 2 4					

Balance Sheet as at 31st March, 1930—(continued.)

CAPITAL AND LIABILITIES	Rs.	A.	P.	Rs.	A.	P.	PROPERTY AND ASSETS.	Rs.	A.	P.
U. P. A. S. I. Buying Agency Subscriptions unexpired 2,050 13 4							Laboratory Apparatus at Cost.—			
Income-tax 64 2 0							At Nellakotta Tea Station ..	9,243	1	0
Due by Agencies for Railway Deposit 14,350 0 0							Less Depreciation to date ..	6,013	1	0
	1,60,448	2	8	1,65,497	11	10	OFFICE ACCESSORIES STATIONERY—			
							ADVANCES.—			
							Motor Car Advance at Head Office and Divisions ..	12,855	0	0
							Sundries ..	5,549	9	1
							BOOK DEBTS.—			
							At Head Office Considered Good ..	9,947	6	1
							At Divisions Considered Good ..	136	0	0
							Estates on account of advances at Divisions.	1,754	1	8
							</			

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SOUTHERN INDIA PLANTERS' BENEVOLENT FUND.					
Rs. 18,500-3½% Government Loan at Rs. 69-3-0 valued at Market rate on 31st March, 1930	12,799	11	0		
Imperial Bank of India Fixed Deposit ..	57,000	0	0		
British War Loan £3,000 Face Value at Cost ..	40,658	2	6		
Interest accrued on Fixed Deposit and Government Paper ..	1,913	8	8		
Imperial Bank of India, Current Account ..	3,392	7	6		
Cash at Head Office ..	20	15	0		
				1,15,784	12 8
PROVIDENT FUND INVESTMENT.—					
Post Office Cash Certificates Rs. 20,000 at Cost ..	15,500	0	0		
6% 1931 Bonds for Rs. 2,300 at Cost ..	2,420	12	0		
5% 1933 Bonds for Rs. 1,400 at Cost ..	1,457	12	0		
5% 1945-55 Bonds for Rs. 1,03,500 at Cost ..	1,08,702	11	0		

Balance Sheet as at 31st March, 1930—(continued.)

CAPITAL AND LIABILITIES.	Rs.	A. P.	Rs.	A. P.	PROPERTY AND ASSETS.	Rs.	A. P.	Rs.	A. P.	308
					5% 1929-47 British War Bonds £ 1,000 at Cost.	13,610	6	6		
						1,41,691	9	6		
					Add Interest Accrued on Government Bonds.	2,407	4	2	1,44,098	13 8
					SPORTS FUND.—					
					Fixed Deposit with Imperial Bank of India.					
					INVESTMENTS.—					
					5% British Government Bonds 1929/47 £4,000 at Cost	54,210	12	6		
					Fixed Deposit with Imperial Bank of India.	1,60,500	0	0	2,070	3 0
						2,14,710	12	6		
					Add Interest accrued to date	2,721	12	6	2,17,432	9 0
					CASH AND OTHER					
					BALANCES.—	233	6	9		
					At Head Office					
					At Agencies & Divisions	33,127	6	7		

UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA.

(INCORPORATED)

BUDGET 1930-31.

EXPENDITURE.	Rs.	Rs.	INCOME.	Rs.	Rs.
To HEAD OFFICE—					
Secretary	22,800		By SUBSCRIPTIONS—		
Asst. Secretary	3,000		Firms and Companies	3,000	
Rents, Bungalows and Office	8,400		Tea 120,377 acres at As. 12	90,283	
Clerical Staff	4,940		Coffee 47,078 acres at As. 8	23,539	
Telephones, Fans and Lights	4,425		Rubber 46,264 acres at As. 6	17,349	
Poons	260		Minor Products 4,671 acres at As. 6	1,751	
Postages and Telegrams	600				1,35,922
Stationery and Printing	1,000				
Bank Charges	100				
Audit	500		By LABOUR DEPARTMENT—		
Insurance and Depreciation	750		To be Collected		2,33,476
Incidentals	283				
Motor Mileage	500		By SCIENTIFIC DEPARTMENT—		
Periodicals and Library	100		Contribution from Madras Government.	28,000	
Provident Funds—European	2,640		" " " " "	2,350	
" " " " " "	247		" " " " "	2,666	
Medical	50		Proceeds Tea Cess 120,377 acres at As. 6	45,141	
			" " " " "	5,884	
			" " " " "	46,264	
To MEETINGS		46,595			
Employers' Federation of S. I.		6,000			
		250			
					1,30,305

To POLITICAL DEPARTMENT—	22,540	By INTEREST ..	9,500	
		By SUNDRY RECEIPTS	2,000	11,500
To SCIENTIFIC DEPARTMENT—				
Tea Experimental Station ..	49,340			
Indian Tea Association ..	10,000			
Coffee Scientific Officer ..	11,500			
Mundakayam Rubber Station ..	51,600			
General Charges ..	1,550			
	1,23,990			
To LABOUR DEPARTMENT—				
Director's Office and Reserve for				
Emergencies ..	57,300			
Coimbatore Division ..	42,800			
Salem ..	31,200			
Mangalore ..	40,500			
Mysore ..	38,600			
Palamcottah ..	53,600			
Srivilliputtur ..	46,600			
Excess of Income over Expenditure.	3,10,600			
	1,228			
Total Rupees ..	5,11,203	Total Rupees. ..		5,11,203

MADRAS, } Passed at a Meeting of the General Committee held on 27th February, 1930.
 26th February, 1930. } **H. WADDINGTON,**
 Secretary.

APPENDIX.**Rules of the U. P. A. S. I. (Incorporated).**

I. Each District Association shall register with the Secretary not later than 1st day of January each year details of the area on which subscriptions due to the U. P. A. S. I. are to be calculated for the ensuing year.

II. The Chairman shall be elected by ballot at the Ordinary General Meeting of the Association held each year and shall hold Office until a successor has been duly elected.

III. Should the Office of Chairman become vacant the Executive Committee shall appoint one of its members to hold Office and fill the consequent vacancy in the Committee, such appointments to hold good until the next Ordinary General Meeting of the Association.

IV. In the absence of the Chairman in the case of any Banking Accounts requiring two signatures those of the Secretary and any member of the Executive Committee shall suffice.

V. The election of the Executive Committee shall be by ballot, representatives of each industry to be elected by the votes of the area under the corresponding products only.

IV. No subject other than those on the published Agenda shall be discussed except with the consent of the meeting. No original proposition shall be made unless thirty days notice in the case of an Ordinary Meeting and fourteen days notice in the case of a General Committee Meeting, stating objects and reasons, has been given to the Secretary, except with the consent of the Executive Committee with which a copy of the proposed resolution has been lodged at least two days before the meeting.

VII. Rescinded.

VIII. In addition to its two nominated representatives each District Association may send three of its members to attend the General Meeting of the Association, who shall be allowed to address the meeting, with the permission of the Chairman, but shall not vote.

IX. The Budget for the ensuing year shall be submitted to the General Committee before the 1st day of March and the Budget Meeting of the General Committee be held at any convenient date in the latter half of March each year.

X. The Trustee of the Cochin Port Trust representing the Association shall always, if possible, be a planter and shall be elected by the postal vote of the active Members of the Executive Committee.

THE U. P. A. S. I. BUYING AGENCY (U.B.A.)

Rules.

I. The Agency is and shall be a Department of the United Planters' Association of Southern India, and as such its affairs shall be administered by the General and Executive Committees of that body and the Secretary shall be the Secretary of the U.P.A.S.I.

II. As an Agency to obtain concessions as regards prices charged for goods supplied or services rendered its members in return for prompt payment and to encourage combination in placing buying orders.

III. The following shall be entitled to membership on the payment of an annual subscription of Rs. 10 which may be collected by the Secretary forwarding the Membership Ticket by V. P. Post for Rs. 10-4-0.

All Members and European employees of Members of the U.P.A.S.I., all Members of District Associations which are members of the U.P.A.S.I., and all European employees of the U.P.A.S.I.

IV. Membership shall be reckoned from the 1st of the month nearest to the date of receipt of application and all renewals shall date from the expiry of the previous ticket, in no case shall any allowance be made for absence on leave or any ticket be issued for a period of less than twelve months. Any member whose subscription is one year in arrears shall cease to be a member.

V. A member's subscription will cover purchases by himself or any actual dependent and all purchases for any estate of which he is Superintendent or Owner (otherwise than as a Director or Shareholder only) if they subscribe to a District Association which is a member of the U.P.A.S.I.

VI. Members failing to settle their accounts with Firms in the list as provided for in Rule VII will be liable to have their names removed from the list of members and cease to be entitled to any of the benefits obtained by the Agency.

VII. The names of Firms, Companies and persons who agree to grant special terms to Members of the Agency shall be entered in a list kept for that purpose.

which shall from time to time be circulated to all members; and such firms, Companies and persons shall be furnished periodically with the Agency list of men

Liability. VIII. The Agency will not be responsible in any way for the action of its members or of the Companies, and others granting special terms.

Profits. IX. Any balance being a Profit at the end of the year shall be credited to the Southern India Planters' Voluntary Fund.

X. In no case shall the Secretary act as the agent or a member in any business connected with the Agency.

U.P.A.S.I. SPORTS CLUB.

Rules.

1. *Membership*.—The following shall be entitled to Membership of the Club on payment of the annual subscription which shall be due on the 1st of April:—

- (a) All District Associations which are Members of the U. P. A. S. I.
- (b) Any European Proprietor, Manager, Superintendent, or Assistant Superintendent of an Estate subscribing to a District Association, which is a member of the U. P. A. S. I., or any member of such Association or any European employee of the U. P. A. S. I.
- (c) Any person directly interested in planting as a Director or Agent and not eligible under (b) may become a member of the Club on being admitted by a majority of votes of the Committee, taken by ballot.
- (d) Any European resident in a planting District, employed by a Planting Company subscribing to the U.P.A.S.I., and not eligible under clauses (b) and (c), may become a member on the recommendation of the District Association concerned and accepted by the Committee by ballot.

2. *Annual Subscription*.—Members under Clause (a) of Rule 1, Rs. 50.

Members elected under Clauses (b) and (d) of Rule 1 shall pay an annual subscription of Rs. 10.

Members under Clause (c) of Rule 1, Rs. 20.

An annual subscribing member whenever temporarily out of planting employment shall be allowed to remain a member of the Club for a period of one year provided that his subscription is paid for this period. Such period to be from 1st April following the date of his unemployment.

Any Member of the Club except those under Clause (a) of Rule 1, can become a Life Member on payment of Rs. 150.

3. *Period.*—Membership shall be for a year commencing 1st April to 31st March.

4. *Resignation.*—Any Member shall have the right of resigning his Membership by giving notice in writing to the Secretary on or before the 31st March of any year provided that his subscription shall have been paid up to the 31st March of that year.

5. *Management.*—The affairs of the Club shall be administered by a President and Committee of four being Members of the Club who shall be elected at the time of the Planters' Week and shall exercise absolute control over the affairs of the Club except as otherwise provided for in these Rules.

6. *Some Powers of the Committee.*—The Committee shall have power to alter the rates of subscription as from next 1st April in any year to make and alter Rules and to add to their number from other members of the Club and shall elect a Secretary. Such alteration of rates and Rules to be brought up for sanction at the next General Committee Meeting.

7. *Treasurer.*—The Treasurer of the Club shall be the United Planters' Association of Southern India who shall receive and disburse all monies of the Club under the direction of the Committee.

8. *Finance.*—The Funds of the Club shall be used:—

- (a) For the purpose of financing the expenses of matches played by representative Teams of the Club against outside clubs and inter-district matches.
- (b) For providing Trophies.

SPORTS CLUB

Accounts 1929-1930.

U. P. A. S. I. SPORTS FUND INCOME AND EXPENDITURE ACCOUNT.

1st April, 1929 to 31st March, 1930.

EXPENDITURE.		Rs.	A. P.	Rs.	A. P.	INCOME.		Rs.	A. P.	Rs.	A. P.
March 31st 1930.	To PLAYERS' WEEK, 1929 (22nd Feby.—3rd March)					April 1st 1929.	By BALANCE.				
	For Cups ..	320	6	0			Cash on hand ..	3,847	11	9	
	" Cricket ..	298	12	0			Fixed Deposit ..	2,000	0	0	
	" Footballs ..	48	5	0			With Mr. Kocch- lin ..	69	11	0	
	" Ooty Club bill.	1,250	7	9			With Capt. Croft.	150	0	0	
		1,926	14	9						6,067	6
	Less Profit on Fancy Dress Ball.	357	8	0		March 31st 1930.	By SUBSCRIPTIONS.				9
		1,569	6	9			3 Associations @ Rs. 100 each.	300	0	0	
		2,472	1	2			9 Associations @ Rs. 50 each ..	450	0	0	
	To T. A. of District Members ..				4,041	7	2 Members @ Rs. 50 each ..	100	0	0	
							7 Members @ Rs. 25 each ..	175	0	0	
	To RUGBY FOOTBALL TOURNAMENT.						2 Members @ Rs. 20 each ..	40	0	0	
	Entrance Fee ..	20	0	0			12 Members @ Rs. 15 each ..	180	0	0	
	Jerseys, Stockings, Photos, etc.	157	8	0			233 Members @ Rs. 10 each ..	2,330	0	0	
	T. A. of District Members ..	849	2	0			6 Members @ Rs. 5 each ..	30	0	0	
	Mr. E. A. Stone, Medical ..	40	0	0	1,066	10				3,605	10
											0

**SOUTHERN INDIA PLANTERS'
BENEVOLENT FUND.**

*Registered under the Societies' Registration Act XXI of
1860 on the 22nd January, 1924.*

Resolution of 1909.

PASSED ON AUGUST 13, 1909.

“That in view of the great benefits a Benevolent Fund would confer on the whole Planting Community, this Association recommends the starting of a Benevolent Fund for the Planters of Southern India on the lines drawn up by this meeting, and that the Secretaries of local District Associations be requested to collect subscriptions and forward such to the Secretary, U.P.A.S.I.”

**Memorandum of Association of the Southern India
Planters' Benevolent Fund.**

1. The name of the Association is the Southern India Planters' Benevolent Fund hereinafter referred to as “The Fund.”

2. The objects for which the Association has been started are:—

- (a) To give temporary assistance to members or to dependents of members who are in distress as the result of any good and sufficient cause.
- (b) To give temporary assistance in special cases to dependents of European planters who are not members.
- (c) Generally to make such use of the funds of the Association as will best effect the carrying out of the aforesaid objects or any of them, but in no case is it intended to provide an annual income.

**Rules and Regulations of the Southern India
Planters' Benevolent Fund.**

Membership.

1. Subject to Rule 4 the following shall be entitled to membership:—

(a) Any European Proprietor, Manager, Superintendent, Assistant or Recruiter of an Estate subscribing to a District Planters' Association which is a Member of the United Planters' Association of Southern India or who is himself a subscriber to such an Association or any European Employee of the United Planters' Association of Southern India on payment of a minimum subscription of Rs. 10 per annum.

(b) Any Estate subscribing to a District Planters' Association which is a member of the United Planters' Association of Southern India or any member of the United Planters' Association of Southern India on payment of a minimum subscription of Rs. 25 per annum.

Life Membership.

2. A donor of Rs. 200 or any member subscribing Rs. 200 within a period not exceeding five years shall be considered a Life Member and entitled to the benefits of the Fund without payment of further subscriptions.

Patrons and Life Members.

3. A donor of Rs. 1,000 either in one or more instalments shall be welcomed as a patron and shall be considered a LIFE MEMBER and be entitled to all benefits of the Fund, and shall not be subject to the provisions of Rule 8.

Application for Membership and Committee rights of refusal.

4. All first subscriptions and applications for membership shall be sent to the Secretary on a form to be prescribed by the General Committee through the Honorary Secretaries of District Planters' Associations, who shall certify that the applicant is eligible for membership under Rule 1 and the Executive Committee shall have the right of refusing any subscription and rejecting any application for membership.

Withdrawal of Membership.

5. Any member shall have the right of resigning his membership by giving notice in writing to the Secretary on or before the 31st March of any year provided that his subscription shall have been paid up to the 31st of March of that year.

Subscription
due on 1st
April.

6. All subscriptions shall be due on the 1st April each year and the Secretary or Honorary Secretaries of local Associations shall collect the same.

Subscriptions
in arrears.

7. Any member whose subscription is more than one year in arrears shall only be entitled to such benefit as is allowed under Rule 22 which restriction shall remain in force for two years after payment of such arrears.

Change of
Profession.

8. Any member except a donor of Rs. 1,000 who by reason of change in his profession or employment would not be eligible for membership under Rule 1 but wishes to retain his membership shall submit an application to remain a member to the Secretary for the decision of the Executive Committee whose decision shall be final.

Donations.

9. All subscriptions of less than the minimum laid down in Rule 1 or received from persons not eligible for membership shall be treated as donations to the Fund.

Constitution.

10. The Fund shall be administered by a General Committee composed of the Members of the General Committee of the United Planters' Association of Southern India, whose Secretary shall also be the Secretary of the Fund.

Executive
Committee.

11. The General Committee shall appoint an Executive Committee and may delegate to it any of the powers of the General Committee except those of making, altering or repealing by-laws.

Powers of
General Com-
mittee.

12. The General Committee shall have power—

- (a) to arrange for meetings of the members of the Fund and for its own meetings and to regulate the procedure at all such meetings including the system of voting and to alter such procedure;
- (b) to make, alter and repeal all such by-laws as they may deem necessary or convenient for the proper conduct and management of the Fund provided that no by-law shall be inconsistent with or shall affect or repeal anything contained in the Memorandum of Association or the Rules of the Fund.

Quorum at
Meeting of
General Com-
mittee.

13. At any meeting of the General Committee 7 members shall form a quorum of whom no two shall be members of the same Planters' District Association.

Trustees.

14. The Chairman and the Secretary of the United Planters' Association of Southern India shall be the Trustees of the Fund for the time being.

Vesting of
Property.

15. All the property of the Fund moveable and immoveable shall vest in the Trustees and all documents relating to and affecting the property of the Fund shall be taken and stand in the name of the Fund; all documents relating to the properties of the Fund shall be executed by the Trustees for and on behalf of the Fund.

Suits by and
against the
Fund.

16. The Fund shall sue or be sued in the name of the Secretary.

Banking.

17. All subscriptions and monies received shall be paid into a separate account with the Imperial Bank of India, and it shall require the joint signatures of the Trustees to draw any money from that account.

Investments.

18. The monies of the Fund shall be invested in any investments allowed by the law for the time being in force for the investments of Trust Funds, or they may be placed in fixed deposit with the Imperial Bank of India.

Application of
for Assist-
ance.

19. All applications for assistance or relief shall be made on a form to be prescribed by the General Committee and forwarded to the Executive Committee through the Secretary. Applications for assistance for employees of the United Planters' Association of Southern India shall be made direct to the Executive Committee by the Chairman of the United Planters' Association of Southern India.

Limitation of
Objects.

20. No grants involving periodical payments shall in the first instance or in case of subsequent renewal be made for a longer period than six months. It shall, however, be competent for anyone in distress to apply for further relief, and the Executive Committee may render such assistance if the Funds are sufficient to meet the deserving cases of first applicants. In no case shall first class passages be granted if second class are available.

Right of Dt.
Associations
to grant emer-
gent assist-
ance.

21. The Secretary of any District Association may, with the sanction of his Association or Committee, give temporary relief in case of emergency to the extent of Rs. 100 in any one case provided that the applicant for relief is a member of the Fund or a dependent of a member.

Grants to
Non-Members.

22. Dependents of European Planters other than members may receive assistance from the Fund only on the unanimous recommendation of the Committee or other administrative body of the Planters' District Association recommending such assistance.

Repeal or
Amendment
of Rules.

23. These rules may be added to, repealed, or amended by resolution at any General Meeting of the Fund of which at least three months' notice shall have been given provided that no such resolution shall be deemed to have been passed unless it be carried by a majority of at least three-fifths of the members voting thereon.

BY-LAWS.

Confirmed at the First Annual General Meeting held at Bangalore on the 23rd October, 1924.

1. That the Annual General Meeting shall be held at the same place and at about the same time as the Annual General Meeting of the United Planters' Association of Southern India.

2. That at all General Meetings voting shall only be by Patrons and District Planters' Associations, members of the U.P.A.S.I. or their representatives and the Chairman of the U.P.A.S.I. Each Patron shall be entitled to five votes. The Chairman of the U.P.A.S.I. shall exercise the votes of the employees of the U.P.A.S.I. and such other members of the Funds as would otherwise be unrepresented. Representatives of District Associations and the Chairman of the U.P.A.S.I. shall be entitled to two votes for every Life Member represented and one vote for each ten rupees of the current year's subscription received before the date of the meeting from members represented by them.

PATRONS.

The Travancore Combined Planters' Association.
 The Mysore Planters' Association.
 The English and Scottish Joint Co-operative Wholesale Society Ltd.
 The Yendayar Estate.
 The Nemmeny and Redlynch Estates.
 Mr. J. J. Murphy.
 Mr. C. R. T. Congreve.
 Messrs. Volkart Bros.
 „ Mangles Bros.
 „ Stanmore (Anamallay) Estates Co., Ltd.
 „ Nonsuch Tea Estates Ltd.

LIST OF LIFE MEMBERS.

Patrons under the Old Rules.

T. H. Allan & Co.	Korangamudi Estate.
Anupura Coffee Works Co.	R. Lescher.
Ltd.	J. Mackie.
Sir Fairless Barber, <i>Kt.</i>	C. A. Mackenzie.
S. Bayly.	Malayalam Plantations, Ltd.
Binny's Estates Ltd.	B. A. Marden.
Lt.-Col. C. H. Brock, O.B.E.,	G. A. Marsh.
V.D.	C. L. McLean.
Castlecroft Estate.	Brooke Mockett.
E. Sydenham Clarke.	Mundakayam V. Rubber Co.
Colombo Commercial Co. Ltd.	Muskal Bora Estate.
Consolidated Coffee Estates	L. Newcome.
Ltd.	J. S. Nicolls.
C. Courpalais.	K. E. Nicoll.
H. Cuthell.	G. R. Oliver.
Lt.-Col. W. L. Crawford,	Peirce, Leslie & Co., Ltd.
D.S.O.	Portland Estate.
A. S. Dandison.	Presidency Manure Works.
Darragh Smail & Co. Ltd.	Pudukad Rubber Co., Ltd.
D. Elkington.	Puthuthottam Estate.
G. P. Farley.	J. A. Richardson.
E. T. C. Farr.	J. H. Robinson.
T. W. H. Fitchett.	R. Ross.
R. G. Foster.	A. J. Saldanha & Sons.
J. F. Fraser.	Sholayar Estate.
T. P. Gauld.	E. W. Simcock.
G. L. H. Gibson.	Sir R. Stanes, <i>Kt.</i>
C. H. Godfrey.	Tea Estates India, Ltd.
C. J. Hall.	Thodapuzha Rubber Co., Ltd.
E. Hall.	Travancore Rubber Co. Ltd.
E. H. Halliley.	J. R. Vincent.
J. G. Hamilton.	H. Waddington.
R. Harley.	H. J. Walmsley.
Harrisons and Crosfield, Ltd.	Capt. E. G. Windle.
Campbell Hunt.	Woodlands and Olands
C. St. John Ives.	Estates.
J. H. Ireland Jones.	W. Woodman.
Karamalai Estate.	B. Wolde.
Kerala Calicut Estates Ltd.	

REPORT

OF THE SEVENTH ANNUAL GENERAL MEETING

OF THE SOUTHERN INDIA PLANTERS' BENEVOLENT FUND

(INCORPORATED)

Proceedings of the Seventh Annual General Meeting of the Southern India Planters' Benevolent Fund (Incorporated) held at the Mayo Hall, Bangalore.

POSTPONEMENT.

The Annual General Meeting of the United Planters' Association of Southern India being still in progress at 10-30 a.m., on the 21st August, at which time this meeting had been called, the Chairman postponed the meeting until the close of that of the U.P.A.S.I.

The Meeting was held at 11-30 a.m. on Friday, the 22nd August, 1930.

PRESENT.

Mr. C. R. T. Congreve	..	<i>Chairman.</i>
„ H. Waddington	..	<i>Secretary.</i>
„ E. L. Hill	..	<i>Asst. Secretary.</i>

and the following representatives of members:—

Anamallais	..	Messrs. T. Davenport & W. H. Martin.
Cen. Travancore	..	„ J. H. Cantlay & H. Clarke.
Coorg	..	Lt.-Col. H. F. Murland & Mr. A. E. J. Nicolls.
Kanan Devans	..	Messrs. H. C. Boyd & A. J. Wright.
Mundakayam	..	„ N. B. Hartley & O. J. Egan-Wyer.
Mysore	..	Mr. E. W. Fowke.
Nelliampathies	..	„ E. G. Cameron.
Nilgiris	..	Messrs. C. L. Greig & J. B. Vernede.
Nilgiri-Wynaad	..	Mr. R. Fowke
Shevaroy	..	Messrs. P. V. Briscoe & E. H. A. Travers-Drapes.
West Coast	..	Mr. H. J. Walmesley.
Wynaad	..	Messrs. G. Bayzand & R. N. W. Jodrell.

Under instructions from the Chairman, the Secretary read the notice calling the meeting.

The Proceedings of the last Annual General Meeting, which was held on the 22nd August 1929, having been published in full in the Book of Proceedings for that year, were taken as read and confirmed.

The Secretary read the following report:—

Secretary's Report 1930.

The total subscriptions and donations, received during the year 1929-1930, were Rs. 8,943-10-0, or some Rs. 1,479 less than in the preceding year. A satisfactory point however is that the number of planters subscribing shows a slight increase; 372 compared with 364. The Nonsuch Tea Estates qualified during the year as a Patron.

Other receipts were Rs. 1,626-15-6 from the Buying Agency and interest Rs. 4,092-13-0, making a total income from all sources of Rs. 14,663-6-6.

Calls on the Fund were heavier than ever before, and totalled Rs. 12,350-0-5, the largest item as usual being account education of children, ten of whom were being educated during the year.

The administration of the fund to the satisfaction of members was, during the year, considerably handicapped by the general ignoring of Rule 6, which provides that all subscriptions shall be due on the 1st April of each year. A large number of members postponed payment till the end of the year. The Executive Committee pointed out, on several occasions, that it was obliged to forestall all probable sources of revenue to meet calls being made on the Fund. Subscriptions being purely voluntary, the administration can never be sure that subscriptions in arrears will finally be paid.

The amount received during the last two months February and March was Rs. 1,660, with the result that, notwithstanding the investments of the Fund had depreciated by over Rs. 1,000, there was a surplus of Rs. 1,168 on the year's working.

The total of the Fund at the 31st March, 1930, was Rs. 1,15,784-12-8.

District Associations have taken note of the difficulty in connection with late payments of subscriptions for the amount received to date this year exceed that to same date last year by Rs. 986.

H. WADDINGTON,
Secretary.

The Chairman asked if any member had any comment to make or question to ask in connection with the Secretary's Report.

Mr. J. H. Cantlay asked that the Secretary's Report and proceedings of the meeting be published in the "Planters' Chronicle." This was agreed to.

The Chairman moved the following resolution :—

"That the Secretary's Report be adopted."

Carried.

Executive Committee.

The Chairman explained that, under the rules of the Fund, it was necessary to appoint an Executive Committee, and proposed :—

"That the Executive Committee of the U.P.A.S.I. be the Executive Committee of the Southern India Planters' Benevolent Fund, with all powers of the General Committee except those of making, altering or repealing By-laws."

Carried.

Accounts 1929-1930.

The Chairman pointed out that all present had copies of the Accounts for 1929-1930 and proposed :—

"That the accounts for 1929-30 be passed and adopted."

Carried.

The Chairman asked whether there was any further business which members wished to bring forward.

Mr. W. H. Martin suggested that a quarterly report regarding the finances of the Fund should be published in the "Chronicle," and this was agreed to.

Mr. H. J. Walmesley speaking as to the falling off in the amount of subscriptions pointed out that the amount collected in any year chiefly depended upon the energy of the Honorary Secretaries of District Associations.

There being no further business before the meeting, the Chairman declared it closed.

H. WADDINGTON,
Secretary.

C. R. T. CONGREVE,
Chairman.



SOUTHERN INDIA PLANTERS' BENEVOLENT FUND ACCOUNT.
Statement for the year ended 31st March, 1930.

RECEIPTS.	Rs.		A. P.	PAYMENTS.		Rs.		A. P.		Rs.		A. P.	
Subscriptions and Donations	8,943	10	0	Assistance Granted—									
Interest on Fixed Deposit and Government Paper	4,092	13	0	Case No. 1 Widow .. ..	..	900	0	0					
Profit on Buying Agency transferred	1,626	15	6	2 Education of 3 boys and 2 girls ..	..	600	0	0					
Amount of the Fund as at 31st March, 1929 ..	1,14,616	7	7	3 Education of 1 girl .. ..	..	3,753	1	0					
				4 Maintenance of 1 child .. ..	..	144	0	0					
				5 Home education of 1 girl .. ..	..	555	14	0					
				6 Home education of 1 boy .. ..	..	808	6	0					
				7 Education of 2 girls and 1 boy ..	..	2,550	4	0					
				8 Passage and Home allowance for an invalid planter and wife ..	..	2,287	6	0					
				9 Home allowance for an invalid planter .. ..	..	201	0	8					
				10 Temporary help for a planter ..	..	250	0	0					
				11 Do, do .. ..	..	300	0	0					
				Depreciation on 3½% Government Paper (Rs. 18,500 valued as on 31st March 1930).						12,350	0	5	
				Expenses—						1,075	5	0	
				Postage and Telegrams .. ..	..	33	3	0					
				Printing and Stationery .. ..	..	24	8	0					
				Bank Charges .. ..	..	7	1	0					
				Incidentals .. ..	..	5	0	0					
				Balance as per Balance Sheet .. ..	..					69	12	0	
				Total Rs...						1,15,784	12	8	
										1,29,279	14	1	

THE
UNITED PLANTERS' ASSOCIATION
OF
SOUTHERN INDIA
(INCORPORATED)

THIRTY-EIGHTH ANNUAL GENERAL MEETING

HELD AT

BANGALORE

ON

17th, 18th and 19th August 1931

WITH APPENDICES.

MADRAS
PRINTED BY ASSOCIATED PRINTERS

1931

The United Planters' Association

OF

Southern India.

(INCORPORATED)

ESTABLISHED 1894, INCORPORATED 1899,
REORGANIZED 1919.

MEMBERS.

District Planters' Associations.

ANAMALLAI PLANTERS' ASSOCIATION.
CENTRAL TRAVANCORE PLANTERS' ASSOCIATION.
COORG PLANTERS' ASSOCIATION.
KANAN DEVAN PLANTERS' ASSOCIATION.
MUNDAKAYAM PLANTERS' ASSOCIATION.
MYSORE PLANTERS' ASSOCIATION.
NELLIAMPATHY PLANTERS' ASSOCIATION.
NILGIRI PLANTERS' ASSOCIATION.
NILGIRI-WYNAAD PLANTERS' ASSOCIATION.
SHEVAROY PLANTERS' ASSOCIATION.
SOUTH TRAVANCORE PLANTERS' ASSOCIATION.
WEST COAST PLANTERS' ASSOCIATION.
WYNAAD PLANTERS' ASSOCIATION.

Firms & Companies.

THE ANUPURA COFFEE WORKS CO., LTD., *Coimbatore.*
MESSRS. ASPINWALL & CO. LTD., *Cochin.*
" BAYLY & BROCK, LTD., *Nilgiris.*
" BINNY'S ESTATES, LTD., *Madras.*
" BOMBAY-BURMAH TRADING CORPORATION LTD., *Bombay.*
" BURMAH-SHELL OIL STORAGE & DISTRIBUTING CO. OF
INDIA LTD., *Madras.*
" THE CHILEAN NITRATE AGRICULTURAL SERVICE, *Calcutta.*
" DARRAGH, SMAIL & COMPANY LTD., *Alleppey.*
" ENGLISH & SCOTTISH JOINT CO-OPERATIVE WHOLESALE
SOCIETY LTD, *Calicut.*
" HARRISONS & CROSFIELD LTD., *Quilon.*
" IMPERIAL CHEMICAL INDUSTRIES (INDIA), LTD., *Madras.*
" THE MADURA CO. LTD., *Cochin.*
" MARSHALL SONS & CO. (INDIA), LTD., *Madras.*
" OVERSEAS POTASH SUPPLY CO. LTD., *Calcutta.*
" PARRY & CO. LTD., *Madras.*
" PEIRCE, LESLIE & CO. LTD., *Calicut.*
" SHAW WALLACE & CO., *Madras.*
" THE SOUTHERN INDIA PLANTATIONS AGENCY LTD.,
Coonoor.
" T. STANES & CO. LTD., *Coimbatore.*
" TEA ESTATES INDIA LTD., *Coimbatore.*
" THE UNITED COFFEE SUPPLY CO. LTD., *Coimbatore.*
" VOLKART BROTHERS, *Tellicherry.*

Executive 1930-1931.*Chairman.*—MR. C. R. T. CONGREVE.*Ex-Chairman.*—MR. W. A. J. MILNER.

	<i>Members.</i>	<i>Members-in-Waiting.</i>
TEA	MR. R. N. W. JODRELL.	MR. H. S. CAMERON.
COFFEE	„ A. E. J. NICOLLS.	„ L. NEWCOME.
RUBBER	„ H. J. WALMESLEY.	„ H. B. MACPHERSON.

Planting Member.—MR. F. E. JAMES, O.B.E., M.L.C.*Secretary.*—LT.-COL. C. H. BROCK, O.B.E., V.D.*Asst. Secretary.*—LT.-COMDR. E. L. HILL, R.N. (*Retired.*)*Registered Office.*—Parry's Buildings, North Beach Road, Madras.**HEAD OFFICE:—MERCANTILE BANK BUILDINGS, 1st LINE BEACH, POST BOX No. 155, MADRAS.****AUDITORS:—MESSRS. FRASER & ROSS, No. 17, Armenian Street, Madras.****BANKERS:—THE IMPERIAL BANK OF INDIA, MADRAS.****SOLICITORS:—MESSRS. KING & PARTRIDGE.****Honorary Member of the Madras Chamber of Commerce:**

LT.-COL. C. H. BROCK, O.B.E., V.D.

Representative on the Indian Tea Cess Committee:

MR. J. S. B. WALLACE.

**Representatives on the Legislative Council,
Fort St. George, Madras:**

1893-1896..	THE HON'BLE MR. G. ROMILLY.
1896-1900..	„ „ „ H. P. HODGSON.
1900-1904..	„ „ „ G. L. ACWORTH.
1904-1908..	„ „ „ H. P. HODGSON.
1908-1909..	„ „ „ C. E. ABBOTT.
1909-1912..	„ „ „ J. G. HAMILTON.
1912-1919..	„ „ „ SIR FAIRLESS BARBER.
1919-1922..	MR. J. A. RICHARDSON, M. L. C.
1922-1925..	„ C. R. T. CONGREVE, M. L. C.
1925-1926..	CAPT. E. G. WINDLE, M. L. C.
1926-1929..	MR. C. R. T. CONGREVE, M. L. C.
1929-1930..	„ F. E. JAMES, M. L. C.
1931 ..	„ H. WADDINGTON, M. L. C.
1931 ..	„ F. E. JAMES, M. L. C.

Former Chairmen.

1894-1895	..	Mr.	DIGBY T. BRETT.
1895-1896	..	"	W. H. SPROTT.
1896-1897	..	"	G. L. ACWORTH.
1897-1899	..	"	GEO. ROMILLY.
1899-1900	..	"	W. H. SPROTT.
1900-1901	..	"	H. P. HODGSON.
1901-1902	..	"	ROBERT GOMPERTZ.
1902-1903	..	"	J. A. HARRIS.
1903-1904	..	"	GEO. ROMILLY.
1904-1905	..	{	H. M. KNIGHT.
		"	G. K. MARTIN.
1905-1906	..	"	W. H. SPROTT.
1906-1907	..	{	J. A. HARRIS.
		"	AYLMER MARTIN.
1907-1908	..	"	C. E. ABBOTT.
1908-1909	..	"	J. G. HAMILTON.
1909-1910	..	"	J. A. RICHARDSON.
1910-1911	..	{	R. D. TIPPING.
		"	C. H. BROCK.
		{	HON. MR. J. G. HAMILTON.
1911-1913	..	Mr.	C. E. ABBOTT.
1913-1914	..	"	E. L. MAHON.
1914-1915	..	"	J. A. RICHARDSON.
1915-1916	..	"	C. H. BROWNE.
1916-1919	..	"	J. S. NICOLLS.
1919-1920	..	"	A. S. DANDISON.
1920-1921	..	"	C. R. T. CONGREVE.
1921-1924	..	"	H. L. PINCHES.
1924-1925	..	"	J. A. GWYNNE.
1925-1927	..	"	R. FOWKE.
1927-1928	..	"	A. C. COTTON.
1928-1929	..	"	R. LESCHER.
1929-1930	..	"	W. A. J. MILNER.
1930-1931	..	"	C. R. T. CONGERVE.

PROCEEDINGS
OF THE
THIRTY-EIGHTH ANNUAL GENERAL MEETING
OF THE
United Planters' Association
OF
Southern India
(INCORPORATED)

The Thirty-eighth Annual General Meeting of the United Planters' Association of Southern India (Incorporated) opened at 2-30 p.m. on Monday, the 17th August 1931, at the Mayo Hall, Bangalore.

The following were present:—

Mr. C. R. T. CONGREVE	..	Chairman.
Mr. F. E. JAMES, O.B.E., M.L.C.	..	Planting Member.
Mr. R. N. W. JODRELL	..	} Members of the Executive Committee.
Mr. A. E. J. NICOLLS	..	
Mr. H. J. WALMESLEY	..	
Lt.-COL. C. H. BROCK, O.B.E., V.D.	}	Secretary and Director, Labour Department.
Dr. W. S. SHAW, PH.D., M.SC., F.I.C.	}	Tea Scientific Officer.
Mr. W. W. MAYNE, B.SC.	..	Coffee Scientific Officer.
Lt.-COMDR. F. L. HILL	..	Asst. Secretary.
Messrs. The Annabura Coffee Works Co., Ltd.; Bayly & Brock Ltd., & Patrice, Leslie & Co., Ltd.		
		per Mr. W. K. M. LANGLEY.
" Aspinwall & Co., Ltd.	..	" Mr. H. D. PATCH.
" Bombay-Burmah Trading Corporation.	}	" Mr. ERIC JOHNSON.

<i>Messrs. Burniah-Shell Oil Storage & Distributing Co. of India Ltd.</i>	} per Mr. J. E. H. SORBY.
<i>" Chilean Nitrate Agricultural Service.</i>	} „ Mr. ERIC B. WILSON.
<i>" The English and Scottish Joint Co-operative Wholesale Society, Ltd.</i>	} „ SIR FAIRLESS BARBER.
<i>" Imperial Chemical Industries (India) Ltd.</i>	} „ Mr. L. R. A. DIRCKS.
<i>" Marshall Sons & Co. (India) Ltd.</i>	} „ Mr. A. C. ELDER.
<i>" Parry & Co., Ltd.</i>	.. „ Mr. W. O. WRIGHT.
<i>" T. Stanes & Co., Ltd., and The United Coffee Supply Co., Ltd.</i>	} „ Mr. E. H. STANES.
<i>.. Shaw Wallace & Co.</i>	} „ MESSRS. J. E. WATERFIELD AND J. E. WALKER, B.SC.
<i>" Southern India Plantations Agency Co., Ltd.</i>	} „ Mr. H. S. CAMERON.
<i>" Tea Estates (India) Ltd.</i>	.. „ Mr. R. W. LEVETT.
<i>" The Overseas Export Co., Ltd.</i>	} „ Mr. C. I. CASEY.

And the following representatives of Associations:—

<i>Anamallais</i>	.. { MESSRS. ERIC JOHNSON, J. H. IRELAND JONES & C. F. CLARK.
<i>Central Travancore</i>	.. Mr. J. H. CANTLAY.
<i>Coorg</i>	.. { LT.-COL. H. F. MURLAND AND MR. A. E. J. NICOLLS.
<i>Kanan Devans</i>	.. MESSRS. G.R. STRACHAN AND E.N. PINKS.
<i>Mundakayam</i>	.. Mr. H. B. MACPHERSON.
<i>Mysore</i>	.. MESSRS. L. NEWCOME AND E. W. FOWKE.
<i>Nelliampathies</i>	.. Mr. P. W. DAVIES.
<i>Nilgiris</i>	.. Mr. C. L. GREIG.
<i>Nilgiri-Wynaad</i>	.. { MESSRS. R. M. NICOLLS AND A. N. SCOTT-HART.
<i>Shevaroyis</i>	.. CAPT. E. H. A. TRAVERS DRAPES.
<i>South Travancore & West Coast.</i>	} Mr. H. J. WALMESLEY.
<i>Waynad</i>	.. { MESSRS. R. N. W. JODRELL AND I. W. FINLAYSON.

VISITORS.

G. H. Cooke, Esq., M.C., L.C.S., Collector of the Civil & Military Station, Bangalore.	W. O. Wright, Esq., Chairman European Association, Madras.
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Dr. Leslie C. Coleman, M.A.,
PH.D., C.I.E., Director of Agri-
culture, Mysore.

Mr. W. D. Braken- ridge.	Mr. L. Garrett.	Mr. H. D. Parsons
Mr. H. H. English.	Mr. R. V. Hankin.	Smith.
Mr. J. E. Ferrers.	Mr. J. Hedde.	Mr. P. G. Tipping.
Mr. G. N. Frattini.	Mr. A. E. C. Morris.	Mr. J. Walten.
		Mr. W. R. Wright.

And the following ladies:—

Lady Barber.	Mrs. E. C. D. Greig.	Mrs. B. Morris.
Mrs. R. C. Coleman.	Mrs. J. E. Hankin.	Mrs. C. Nicolls.
Mrs. D. English.	Mrs. E. L. Hill.	Mrs. E. L. Nicolls.
Mrs. E. W. Fowke.	Mrs. E. R. Jodrell.	Mr. W. R. Wright.
Mrs. E. W. Garrett.	Mrs. H. W. Johnson.	

First Day, Monday, 17th August 1931, 2-30 P.M.

The Chairman, Mr. C. R. T. Congreve, declared the meeting open and called upon the Secretary to read the notice convening the meeting.

The Secretary then read the notice calling the meeting and also announced that he had received a telegram from our late Secretary, Mr. H. Waddington, which read as follows:—

“Best wishes for satisfactory meeting and kind remembrances to all.”

He also read messages of regret expressing their inability to attend the meeting from the Hon'ble the British Resident in Mysore, Lieut.-Col. R. J. C. Burke, His Highness the Yuvaraja of Mysore, Sir Mirza Ismail, the Dewan of Travancore and Sir Charles Todhunter.

The Chairman:—The next item of business on the agenda is the Executive Committee's report which has been circulated and copies of which you all have, I propose to take it as read.

EXECUTIVE COMMITTEE'S REPORT.

I. THE U. P. A. S. I.

1. Membership.—The number of District Planters' Associations, members of the Association, remains unaltered at thirteen. Since the last report was issued Messrs. The Dominions Potash Supply Company, Limited, have joined as a Company member, making the total twenty-one.

2. Acreage.—Extensions under Tea last year were considerably less than the average of the previous three years. The acreage under Tea supporting the Association increased during the year by 3,550 acres; the area under Coffee by 1,151 acres, while that under Rubber and Minor Products show a decrease of 1,215 acres and 23 acres respectively. The total area supporting the Association increased from 219,210 acres to 221,660.

The area of each product, in the different Districts, is shown in the following statement of the acreage, subscribing as at 15th June, 1931:—

Acreage Subscribing to U. P. A. S. I. on 15th June, 1931.

Associations.	Tea.	Rubber.	Coffee.	Cardamoms.	Cinchona.	Pepper.	Total.
Anamallais ..	24,303	..	2,123	2,693	165	..	29,284
C. Travancore..	21,632	..	..	88	..	..	21,720
Coorg ..	415	..	14,067	20	..	..	14,502
Kanan Devans..	30,817	..	565	570	27	..	31,979
Mundakayam ..	2,932	12,903	..	..	..	..	15,835
Mysore ..	2,945	135	16,764	432	..	..	20,276
Nelliampathies.	645	198	2,291	489	1	..	3,624
Nilgiris ..	10,128	140	2,609	69	..	..	12,946
Nilgiri-Wynaad	12,306	..	3,702	..	..	..	16,008
Shevaroy ..	..	170	4,580	..	..	..	4,750
S. Travancore.	7,931	14,259	..	..	..	..	22,190
West Coast ..	..	17,238	..	..	..	..	17,238
Wynaad ..	10,919	60	255	..	..	74	11,308
Total ..	124,973	45,103	46,956	4,361	193	74	221,660

3. Articles of Association.—At the Extraordinary General Meetings held on the 18th of August and 15th September, 1930, the amendments to Articles 6 and 13 were passed and confirmed respectively enabling the General Committee to raise or lower the rates of subscription payable to the Association in respect of any particular product to such amount as it may think fit, provided that such increase or decrease shall not be imposed unless passed by a majority of at least three-fourths of the members of the General Committee present and voting.

4. **Executive Committee.**—Since the Meeting of the Executive Committee held on the 16th February, 1931, some changes in the personnel of the Executive Committee have taken place. Mr. J. S. B. Wallace, the Active Member for Tea, having gone to England on leave, Mr. R. N. W. Jodrell, the member-in-waiting, was appointed in his place and Mr. H. S. Cameron was co-opted as member-in-waiting. Mr. W. Gillespie, member-in-waiting for Rubber, resigned his seat on leaving for England, and this post at present remains vacant. Mr. A. J. Wright, representative of the Labour Department, having left India on retirement, it was resolved by the General Committee at the Meeting held in April to suspend the appointment of a member in his place.

5. **Meetings.**—During the year there were four Extraordinary General Meetings of the Association, two in connection with the alteration of the Articles of Association, one in connection with the Tea Scientific Department, and one *re* pension to Mr. Waddington. The General Committee held two meetings and the Executive Committee met five times.

6. **Staff.**—In order to reduce expenditure, the Executive Committee very reluctantly asked Mr. Waddington if he would retire on a pension so that the staff might be reduced by combining the duties of the Secretary and Director of the Labour Department. Mr. Waddington accordingly left India on the 28th May on furlough pending the date of his retirement which becomes effective as from the 31st of August, 1931. Lt.-Col. C. H. Brock transferred the Director's Office from Ootacamund to Madras and took over the duties of the Secretary in addition on Mr. Waddington's departure.

7. **Accounts.**—The Budget for 1930-31 allowed for an expenditure of Rs. 5,09,975 and an income of Rs. 5,11,203 or an excess of income over expenditure amounting to Rs. 1,228.

During the year expenditure was cut down with the result that the following savings amounting to Rs. 53,710 were made from the original estimate:—

	Savings.	Excess.
	Rs.	Rs.
U.P.A.S.I. Head Office ..	2,452	
Meetings ..	2,122	
Political Department ..	..
Tea Experimental Station ..	..	155
Coffee Scientific Officer ..	250	
Rubber Station ..	20,916	
Scientific General Charges ..	265	
Labour Department ..	27,860	
	<u>Rs. 53,865</u>	<u>155</u>

At the last Annual Meeting, it was resolved to forego the collection of the U.P.A.S.I. General Subscription for the second half of the financial year, and the Scientific and Labour Department cesses were reduced in the last quarter to cover the minimum requirements

as shown by revised estimates. This of course implied a very reduced income, the short fall being met from accumulated funds.

The following statement shows the result:—

	Estimated Income.	Actual Receipts.	Expenditure.	Excess Ex- penditure.	Excess In- come.
	Rs.	Rs.	Rs.	Rs.	Rs.
U. P. A. S. I. Sub- scriptions and Sundry Receipts (including grant to Labour Department ..	1,47,422	82,295	1,45,811	63,516	..
Scientific Departments (including Government grants, &c.)—					
Tea ..	60,575	52,428	60,206	7,778*	..
Coffee ..	14,270	13,859	11,525	..	2,334*
Rubber ..	54,861	33,006	30,956	..	2,050*
Min. Pro. ..	599	687	27	..	660*
Labour Dept. (excluding U. P. A. S. I. grant) ..	2,33,476	2,10,825	2,07,740	..	3,085*
Total ..	5,11,203	3,93,100	4,56,265	..	..

A resolution passed last August authorized the under collection of Scientific Department cesses by Rs. 27,000 saved in 1929-30 (the actual figure saved was Rs. 27,886-14-11) but the reductions in cesses resolved on in the second half-year resulted in an under collection of Rs. 30,425. The same resolution provided for the credit or debit balances of departmental accounts at the end of each season to be carried forward annually in that department's accounts. These balances are marked with an asterisk in the above statement and are accordingly being carried forward. The Tea Scientific Department alone has a debit balance.

The net result is that the year's expenditure has had to be covered by drawing Rs. 63,165-7-0 from the Accumulated Funds.

8. Work at the Head Office.—The number of letters received during the year was 7,238 and the number despatched 11,994. These figures do not include any correspondence connected with the "Planters' Chronicle."

9. The European Employees' Provident Fund.—At 31st March, 1934, the number of members was fifteen and the total of the Fund Rs. 1,58,860-11-5, the greater part of which is invested in British War Loan and Government of India 5 per cent. 1945/55 Bonds.

10. The Indian Employees' Provident Fund.—This Fund now has 129 members, the total of the Fund at 31st March, 1931, was Rs. 31,319-6-5 invested in P.O. Certificates and Government of India Bonds of 1945]55.

At the Meeting of the General Committee, held in April, the Rules of the European and Indian Employees' Provident Funds were amended so that the Chairman and Secretary for the time being of the Association can act as the Trustees of the Funds but the Fund remains under the control and management of the Executive Committee, and they authorize investments in the names of the Trustees in Fixed Deposit with the banks approved by them or in Post Office Certificates or in any investments authorized by law for the investment of Trust Funds.

11. The "Planters' Chronicle".—From the number issued on the 30th August, 1930, Mr. E. L. Hill took over the Editorship and Management of the paper. The surplus of income over expenditure for the year was Rs. 96-3-2.

12. Southern India Planters' Benevolent Fund.—The amount collected this year was some Rs. 500 less than the previous year. There was also a slight falling off in the number of personal subscribers. The amount distributed was some Rs. 700 in excess of last year. The total at credit of the Fund on the 31st March was Rs. 1,16,456-1-10, an increase of Rs. 671.

13. U.P.A.S.I. Buying Agency.—This Agency continues its popularity, there being 409 members. The excess of income over Expenditure Rs. 1,330-11-0 was as usual transferred to the credit of the Benevolent Fund.

14. U.P.A.S.I. Sports Club.—As it was resolved to suspend the activities of the Club until further notice, after all liabilities had been cleared off, the balance amounting to Rs. 1,374 was placed in Fixed Deposit with the Imperial Bank of India until such time as it may be possible to re-start the Sports Week.

II. AFFILIATED ASSOCIATIONS.

1. The South Indian Association in London.—We have continued to receive assistance on all matters in which the Association was concerned at Home from the South Indian Association. Mr. J. R. H. Pinckney has been elected Chairman for the current year.

2. The Rubber Growers' Association.—The Rubber Advisory Committee of the United Planters' Association acts as the Southern India Branch of the Rubber Growers' Association.

3. The Indian Tea Association.—The U.P.A.S.I. and the Indian Tea Association have continued to work in consultation with each other on all matters which affect both Associations.

4. The Indian Tea Cess Committee.—Mr. J. S. B. Wallace was appointed the Association's representative on the Indian Tea Cess

Committee in the place of Mr. H. L. Pinches, who resigned on his retirement. At the half-yearly meeting in March it was resolved that 7¼ lakhs be expended during the year 1931-1932 on advertising in India, but of this sum 1¼ lakhs is to be allotted to the scheme for a packing factory for the purpose of packing Tea and selling it at cost price in 2 ounce packets. At the same meeting it was resolved that £50,000 be expended on advertising Tea in the United States of America and £10,000 in the United Kingdom.

III. LEGISLATION.

1. Planting Member.—Mr. F. E. James, M.L.C., proceeding on leave to England on February 19th, 1931, resigned his seat on the Legislative Council and in due course Mr. H. Waddington, the Secretary, was elected in his place. The latter on retiring from the U.P.A.S.I. resigned his seat on the Council and it is anticipated that Mr. F. E. James on his return to India early in August will be re-elected and able to attend the Council's opening session in that month.

In accordance with resolutions passed at the Annual Meeting of 1930, the Association urged the Madras Chamber of Commerce to increase its contribution towards the upkeep of this Department.

Proposals are now on foot to form a separate Political Fund which will be under the control of the Chairmen of the various European Chambers and Associations, under which the U.P.A.S.I. grant will be fixed at an annual contribution to the Political Fund.

2. The Madras Motor Vehicles Taxation Act.—This Act, under the provisions of which all toll gates were abolished as from 1st April, 1931, was passed without a division by the Legislative Council, Madras, on the 4th March, and received the assent of the Governor on the 11th and that of the Governor-General on the 23rd March.

3. Gudalur Compensation for Tenants Improvement Bill.—The Malabar Compensation for Tenants Improvement Act was passed in 1900, and from time to time this Association has urged that its provisions, which secure to tenants on ejection from their holdings, compensation for the improvements made by them, should be extended to the Nilgiri-Wynaad (the Gudalur Taluk of the Nilgiris) as this district formerly belonged to Malabar. Mr. F. E. James has persuaded the Government to bring forward this Bill on the grounds that the tenants of jenmis in that taluk require protection just as much as tenants of jenmis in Malabar. Owing to the absence of Mr. F. E. James on leave in England, consideration of this Bill has been postponed until his return.

IV. DUTIES AND TAXES.

1. Water Tax.—A G.O. No. Ms. 862 dated 21st April, 1931, directed that no charge should be levied for the use of water taken from streams in the Nilgiri and Malabar Wynaads, which at the

re-settlement were not separately demarcated or registered as Government poramboke but were included in the adjoining holdings and assessed accordingly. Thus the long-outstanding and much debated question regarding payment of the above has at last been settled and a notification to this effect published in the "Planters' Chronicle" dated 25th April, 1931.

2. British India Income-Tax.—An appeal lodged with the Income-Tax Commissioner, Madras, asking him to rescind the orders of the Assistant Commissioner at Coimbatore, who had ruled that the cost of supplying of Tea estates was not an admissible deduction for the purpose of calculating the amount due for Income-tax, was successful and it was therefore unnecessary to carry the matter to the High Court. The Commissioner for Income-tax agreed on 5th March, 1931, to allow the amount claimed as a deduction representing expenditure incurred in supplying.

3. Drawback of Import Duty on Tea and Rubber Chests.—On the 22nd December, 1930, notice was received from the Collector of Customs, Madras, to the effect that owing to the lack of staff available, the system of drawback had become impracticable and it had been found necessary to issue new regulations which would come into force on 1st January, 1931. These new regulations, although not actually refusing the grant of drawback, practically made the claim for such impossible, owing to risk of damage to chests and their contents. The Collector of Customs after agreeing to postpone the introduction of these regulations until 1st February, 1931, thereafter refused to postpone further their revised procedure in spite of strong pressure being brought to bear on him by this Association and the Cochin Chamber of Commerce.

V. COMMUNICATIONS.

(A) Railways.

1. Pollachi-Vananthurai Railway.—The Planting Member and Secretary, in accordance with the resolution passed at the last Annual General Meeting, interviewed the Chief Commissioner and Financial Member of the Railway Board when they visited Madras, and urged that this short line of 13 miles be constructed at an early date in order to link up the Anamallais Ropeway with the railway system of the Presidency. The Railway Board Officials explained however that the present time was not economically sound enough to undertake new railway construction, but that when money becomes available on easier terms, they will take up the matter regarding construction of this line.

2. Cochin Harbour-Shoranur-Ernakulam Railway.—On the occasion of the two Railway officials mentioned above, visiting the Cochin Chamber of Commerce, the Dewan of Cochin informed them that H. H. The Maharajah had sanctioned the conversion from metre gauge to broad gauge of the Cochin State Railway from Shoranur to Ernakulam and the work will be commenced at once and completed in about 3 years' time.

(B) Roads.

1. Channel of Communications.—Owing to confusion arising by District Associations addressing the Chairman, Planting Member and Secretary, in regard to the same business in connection with roads, the Chairman has decided that all communications dealing with road matters should be addressed in future to the Planting Member and not to the Secretary or the Chairman.

2. Indian Roads and Transport Development Association.—This Association was started about two years ago at Bombay with Branches in Assam, Karachi, Calcutta and Madras. In January, 1931, the U.P.A.S.I. was asked to nominate two representatives to sit on a Committee, with representatives from the Automobile Association of South India, Madras Chamber of Commerce, Madras Trades Association and the Southern India Chamber of Commerce to consider any question affecting roads, transport and allied subjects when any question relating to these arises for consideration, among one or more of these bodies. The Executive Committee nominated the Planting Member and Secretary to represent the U.P.A.S.I.

3. Roads—General.—Copies of the resolutions passed at the last Annual General Meeting relating to:—

- (a) Request that all roads passing through the Malabar-Wynaad, now under the control of the P.W.D., do continue so to remain and that they do not revert to the District Board for future maintenance,
and
- (b) That the main road from Choladi Bridge to Ootacamund be taken over by the P.W.D. from the Nilgiri District Board

were duly forwarded to the Secretary of the Local Self-Government Department, Madras, and acknowledgment received. Up to the present no further information has since been received by the U.P.A.S.I. from the Local Self-Government Department on this question.

(C) Posts and Telegraphs.

1. Santaveri Post Office.—The Postmaster-General, Madras, was addressed urging that this Post Office be made a sub-office of Chikmagalur but replied that even if the Santaveri Post Office were connected with the Chikmagalur Post Office, there would be no advantage so far as the receipt and despatch of mails at Santaveri are concerned. Mails from Santaveri for places in the West Coast are sent *via* Tarikere, Kadur and Chikmagalur. Similarly return mails for Santaveri are sent by the above route.

With regard to transmission of mails between Santaveri and Chikmagalur, there is no delay but the mail service is partly by motor and partly by runners, consequently the time taken in the transmission of mails between these two places may be a little longer than that taken by private motor service.

If the proposal to have a through motor service between Mangalore and Mudigere materialises, there will be no room for complaint regarding the delay to letters from Santaveri to places in the West Coast and *vice versa*. The delay complained of will continue until the through motor service referred to above is introduced.

(D) Freights.

1. **Freight Rates.**—The resolution passed at the Annual General Meeting urging that the rates for freight of Tea, Rubber, Coffee and Cardamoms be reduced, was forwarded to the South Indian Association in London on 28th August, 1930, with the request that they would take up the matter with the Head Offices of the Conference Lines. In a letter received on the 24th November, they advised that Tea rates from the West Coast were already 5/- less than from Colombo and as the Ceylon Association's application for a reduction in rates had been definitely refused by the Conference Lines, the Committee of the S.I.A. were of opinion that there was no likelihood of such an appeal being successful and they decided not to take action in the way suggested.

Subsequently in accordance with the decision arrived at by the Executive Committee at its meeting in December, the Ceylon Planters' Association was addressed inviting it to join the U.P.A.S.I. in joint representations with a view to obtaining a reduction in the present freight rate on rubber. In reply they advised that, after consulting the various Associations concerned, it had been decided to leave the matter in the hands of the Rubber Growers' Association, London. The Association thereupon approached the latter body, and in due course received a reply to the effect that they had again approached the Conference Lines on the question but they adhered to their former decision that prevailing circumstances did not permit of any further reduction in the tariff rate.

VI. GENERAL.

1. **Discount on Cheques.**—At the time of the Annual General Meeting, a resolution was passed that the Banks in Madras and Indian States should be approached to reduce the discounts charged on the cashing of cheques as it was considered that the rates charged were unreasonably high. Certain cases referred to the Association by the Shevaroy Planters' Association were placed before the Executive Committee, who were of the opinion that the explanation offered by the National Bank was reasonable and that as an Association it was not considered desirable that the matter of petty cheques should be taken up with the Banks who were unlikely to take any notice unless a case involving a really considerable amount of money was presented. It was therefore decided by the Committee that no further action in the matter could be taken.

2. **Beneficial Parasites.**—The Director of the Imperial Institute of Entomology has enquired of the Imperial Council of Agricultural Research, India, whether support will be forthcoming from those interested in India to a scheme, which would embrace

support from Ceylon, New Zealand, Fiji and any other British Possession interested, for the employment of a special Entomologist to carry out a systematic search for beneficial parasites of the different pests affecting agricultural products. Until the number of contributing bodies and the extent of the work required is known, it is difficult to fix, definitely, the financial support required but it is suggested that this might be a contribution of £750 to £1,000 per annum for three years from Southern India. The Executive Committee now has the question under consideration.

3. Tung Oil.—Capt. H. F. Carey of Shanghai, who in 1929 had been instrumental in sending a small supply of Tung Oil seed to the Secretary, in January of this year despatched to us 100 pounds of seed received from Szechuen which came to hand in good condition at the end of February. This seed comes from the fruit of the China Wood Oil Tree (*Aleurites Montana*) which is the hardier of two varieties of trees from which tung oil is produced in China, and is generally found growing in the heavy clay hill sides and waste spaces along the Yangtze river. It is easy of cultivation and the tree thrives best in hilly country. Its hardiness and exceedingly heavy foliage might be usefully employed for covering and mulching poor soil and it is estimated that under normal conditions three acres will yield one ton of oil. A circular addressed to District Associations asking for the names of Planters wishing for seed met with an unexpectedly large response and the whole consignment of seed was at once disposed of, many applicants receiving but a tithe of the number of seed for which they asked. It is hoped to gather from this experiment which districts are suitable for the growth of the tree.

VII. TEA.

1. South Indian Tea Crop, 1930.—The following statement shows the crops of Tea from each district during the year:—

	Lbs.
Anamallais	9,720,469
Nilgiris	6,612,774
Nilgiri-Wynaad	4,093,014
Wynaad & Malabar	5,468,487
Cochin Nelliampathies	61,709
Coorg	167,537
Central Travancore	10,407,446
Mundakayam	907,707
Kanan Devans	13,529,834
South Travancore	2,709,263
Mysore	123,804
Total	53,802,044

2. Consumption of Tea in Southern India.—The figure received from the ports of the Presidency and Travancore show that during 1930 the total exports were 47,437,409 lbs., which would leave a remainder when compared with figures of production of 6,364,635 lbs. consumed in this country. The following table gives

the production and apparent local consumption for the past ten years:—

		Production Lbs.	Local Consumption Lbs.
1921	.. ..	31,399,000	4,000,619
1922	.. ..	36,231,287	6,713,366
1923	.. ..	43,538,648	6,321,706
1924	.. ..	46,161,408	8,207,006
1925	.. ..	47,975,955	4,027,107
1926	.. ..	51,065,004	6,662,284
1927	.. ..	52,387,595	4,773,551
1928	.. ..	55,760,603	7,113,469
1929	.. ..	58,517,586	6,233,341
1930	.. ..	53,802,044	6,364,635

3. Imitation and Adulterated Teas.—In April, 1930, the Madras Corporation appointed four Inspectors under the Madras Prevention of Adulteration Act. The Commissioner in India for the Indian Tea Cess Committee then arranged for a man from South India previously in his employ, to have an opportunity of observing the procedure in conducting legal prosecutions in Calcutta after which he commenced his work in Madras.

The Commissioner of the Madras Corporation, under pressure from the Secretary, U.P.A.S.I., delegated powers to the Inspectors appointed under the Food Adulteration Act on the 1st September, 1930, and the work of the detection of imitation and adulterated teas in Madras commenced.

At first the work of preventing such sales did not run smoothly owing to lack of cordial co-operation between the Inspectors of the Health Office and the staff of the Indian Tea Cess Committee. Some progress was made in Trichinopoly, the Nilgiris, and Coimbatore and the Health Officers of Madura, Nellore and Guntur accepted the co-operation of the Indian Tea Cess Committee.

Mr. B. McHatton, acting Chief Commissioner for India of the Indian Tea Cess Committee, visited Madras on the 22nd November, 1930, in connection with the sale of imitation and adulterated teas.

From this date onwards Local Authorities in Madras commenced to bring the provisions of this Act into force and a very large number of samples of suspicious tea were seized and sent to the Public Analyst for examination and report.

The officials of the Indian Tea Cess Committee are doing their utmost to assist Public Health Officers in the different Municipalities and draw their attention to all cases where imitation teas are known to have been supplied in the various areas, but it is doubtful whether the benefits of the Act in suppressing the trade of imitation teas will become apparent until the Indian Tea Cess Committee are empowered to appoint their own officers as Inspectors in the various areas, such as has already been done in Calcutta.

4. Restriction of the 1931 Tea Crop.—As a result of consultations between the Planting Associations of North and South India, Ceylon, and the planting interests in the Dutch East Indies, a

scheme for restriction of the 1931 tea crop was approved on the basis of that for 1930 being reduced by 20 per cent., conditional upon 75 per cent. support being forthcoming. Particulars of this scheme were circulated to all producers in Southern India, together with an agreement form which owners were asked to complete and return to the U.P.A.S.I. office by the 10th February, 1931. Decision on the matter, as regards sterling concerns, rested with their Home Offices and the South Indian Association in London arranged to obtain promises of support so far as they were concerned.

Eventually it was found that the necessary support for the scheme was not forthcoming from Planters and it had to be abandoned.

5. Increase of Tea Sales in India.—At the last Annual General Meeting a resolution was passed that the Indian Tea Cess Committee be requested to take every possible step to increase the sale of tea in India, if necessary by the formation of a separate selling Agency.

The Indian Tea Cess Committee were therefore approached in the matter and in reply advised that the Executive Committee of the Indian Tea Cess Committee were not prepared to consider the suggestion as it necessitated a departure from the accepted principle of the Cess Committee, namely, not to enter into competition with private selling organizations.

6. Import of Tea into Iraq.—In last year's report of the Executive Committee submitted to the Annual General Meeting, it was mentioned that the Government of Iraq had in April, 1930, issued a notification which appeared to favour Ceylon Tea unduly. The Iraq Government have since issued a Food regulation, repealing the previous regulation relating to tea and deleting the special provision regarding Ceylon Tea. In future samples of all tea proposed to be imported into Iraq must be submitted to the Chemical Examiner for a permit.

Any unsound or adulterated tea will be seized and destroyed.

VIII. COFFEE.

1. Southern India Coffee Crop.—In the last report, for the first time, figures were given for the past ten years' crop taken from the Indian Coffee Statistics, issued by the Director-General of Statistics, Calcutta, who compiles his figures for the period 1st July to 30th June for each year as follows:—

				Lbs.
1919-1920	..	..	..	21,325,035
1920-1921	..	..	..	22,453,659
1921-1922	..	..	..	20,487,926
1922-1923	..	..	..	25,459,428
1923-1924	..	..	..	19,145,403
1924-1925	..	..	..	30,457,644
1925-1926	..	..	..	22,106,717
1926-1927	..	..	..	34,281,995
1927-1928	..	..	..	35,563,321
1928-1929	..	..	..	27,758,633
1929-1930	..	..	..	39,423,908

2. Consumption in India.—As mentioned above the production year of coffee is reckoned from the 1st July to 30th June, and the account of exports given in the annual statement of the Seaborne Trade and Navigation of the Madras Presidency is for the official year 1st April—31st March. It is difficult, therefore, to make an exact comparison, but the total production for the last five years exceeds the amount shipped by 4,000 tons per annum.

3. Prohibition of Import into India.—The import of unroasted coffee into the Madras Presidency having been prohibited as from the 8th August 1930, importers diverted their shipments to Alleppey whence it was conveyed by backwater and imported into the Madras Presidency. The attention of the Agent to the Governor-General for India States having been called to this method of evading the Government of India Order No. 1343|Agri. of the 21st June, 1930, notifications were issued by the States of Cochin and Travancore prohibiting the import from outside India of unroasted coffee.

The resolution passed at the Annual General Meeting was forwarded to the Government of India, urging them to expedite the passing of orders prohibiting the import of unroasted coffee into any port in India, and on 1st April, 1931, an Order No. 534-Agriculture was issued from New Delhi, prohibiting the import into British India of Coffee Plants, Coffee Seeds and Coffee Beans except by the Director of Agriculture, Madras Presidency, who should take all measures necessary to ensure that all such coffee plants, beans or seeds imported by him were free from plant diseases and injurious insects. The prohibition referred to in the above order did not apply to: (1) Roasted and ground coffee or (2) a consignment of unroasted or unground coffee beans or seeds produced in India and covered by a certificate of origin.

Full details of this order were published in the "Planters' Chronicle," dated 9th May, 1931.

4. Stephanoderes.—The result of Dr. Coleman's visit to Java last Autumn appears to show that the existence of *Stephanoderes Hampei* is not so widespread in Southern India at the present time, as was thought to be the case before his visit was made, although it has confirmed that the *Stephanoderes* beetle is in existence in the coffee planting areas. It is probable that the variety *Stephanoderes Hampei* is present but it has not yet been definitely identified.

Disinfection of Bags.—Dr. Coleman recommended that in addition to all estates using their own bags for transport of coffee from estates to the curing yards, the bags should be fumigated when there, with Carbon Bisulphide, before being returned to the Estates.

The Curing Firms were addressed on this point and expressed their willingness to carry out their clients' wishes and do what was required if so requested.

There was some doubt whether the necessary supplies of Carbon Bisulphide would be available, but Messrs. The Imperial Chemical Industries (India) Ltd. stated they would be prepared to make the necessary arrangements for a supply.

5. Coffee Board of Great Britain.—In August last year, the Coffee Board of Great Britain forwarded proposals regarding a campaign of advertising with a view to increasing the consumption of coffee in the United Kingdom; this campaign would not be confined to coffee of any one particular country but would advertise it generally without regard to where it was produced. Particulars were circulated to all Planters likely to be interested and a Meeting of the Executive Committee of the U.P.A.S.I. decided to inform the Coffee Board of Great Britain that the U.P.A.S.I. were in sympathy with their proposals but wished for further information as to how the figures relating to the contributions from the various bodies had been arrived at as it was considered that the amount asked of the Association was out of proportion to the area under cultivation represented by it. Information was also asked concerning what other bodies had been asked to subscribe and on what basis. Up to the present no reply has been received.

IX. RUBBER.

1. Production in Southern India.—From figures supplied to the Association from the ports of shipments, the following statement shows the export of Rubber from South India from 1923—1930:—

					Lbs.
1923	..	..	..	..	8,411,018
1924	..	..	..	..	10,151,636
1925	..	..	..	..	13,950,915
1926	..	..	..	..	14,628,915
1927	..	..	..	..	16,042,831
1928	..	..	..	..	16,823,761
1929	..	..	..	..	17,222,790
1930	..	..	..	..	15,595,518

The production statement compiled by the Director-General of Commercial Intelligence and Statistics gives the production in respect to South India as follows:—

		Production as per Indian Rubber Statistics.	Shipment of Rubber from South India.
		Lbs.	Lbs.
1927	..	14,682,264	16,042,831
1928	..	15,946,913	16,823,761
1929	..	16,852,657	17,222,790

2. Rubber Estates—Remission of Assessment.—In accordance with a resolution passed at a meeting of the Executive Committee held on the 15th February, 1931, the Revenue Department of the Madras Government were addressed urging that owing to the depression and crisis in the Rubber Industry, a remission of the land assessment be granted in respect to all land *bona fide* taken up for the cultivation of rubber, as a temporary relief to assist the industry in tiding over the present crisis. Government, however, in their G. O. No. Ms. 647 of the 23rd March, 1931, intimated their inability to grant such a concession.

3. Rubber Roadways.—The Rubber Growers' Association issued a circular toward the close of 1930, advocating the encouragement of expediting the manufacture of rubber blocks suitable for the construction of roadways and appealed to Producers to agree to supply Rubber Roadways Ltd. standard quality Rubber for a period of five years on the following basis:—

In each of the five years an amount not exceeding the equivalent of:—

- (1) One half per cent. of their 1929 crops free.
- (2) One per cent. of their 1929 crop at market price ruling on date of delivery or 6d. per lb., whichever is lower.
- (3) One per cent. of their 1929 crops at market price ruling on date of delivery or 9d. per lb., whichever is lower.

It was intended that assents to the scheme would not be binding unless Producers representing a production during 1929 aggregating not less than 150,000 tons agreed to contribute Rubber on the basis outlined.

X. SCIENTIFIC DEPARTMENT.

TEA.

1. Staff.—Mr. K. B. W. Jones, Assistant Tea Scientific Officer, having stated that he was unwilling to renew his agreement under present arrangements for the control of the Tea Experimental Station, the Executive Committee accepted his resignation and Mr. Jones sailed for England on 7th May. It was resolved that Dr. Shaw, while working without an European Assistant, might engage the services of an Indian Assistant provided the cost could be met without exceeding the present Budget.

Should Mr. Jones be re-engaged before the expiry of his leave, it was agreed that he should receive the pay that would have been due to him had he entered into a new agreement before leaving.

2. Work at the Tea Experimental Station.—Dr. Shaw has reported fully upon the work at the Station in his Administration Report for the year.

3. Affiliation with Ceylon Tea Research Institute.—In accordance with the resolution passed at the last Annual General Meeting that the Executive Committee should negotiate with the Ceylon Tea Research Institute with a view to the U.P.A.S.I. Tea Scientific Department being received as a Branch of that Institute, a deputation consisting of the Chairman, Mr. J. S. B. Wallace and Mr. H. S. Cameron proceeded to Ceylon on 5th December to visit the St. Coomb's Estate and interview the Chairman of that Institution. At a subsequent meeting of the Executive Committee held on the 16th February, 1931, the report of the discussion between the Chairman and members of the Committee of the Ceylon Tea Research

Institute and the South Indian delegates was read. The Executive Committee thereupon approved the proposals for the affiliation of the U.P.A.S.I. Tea Scientific Department with the Ceylon Tea Research Institute and particulars were forwarded to all District Associations advising them that it was proposed to hold an Extraordinary General Meeting of the Association on 20th April, to discuss these proposals. At the Extraordinary General Meeting held on 20th April at Coonoor, the proposals were adopted *nem con*, but subsequently a letter was received from the Ceylon Tea Research Institute on the 18th May, 1931, stating that their Board had reluctantly come to the conclusion that, in view of the present uncertain position of the Tea Industry both in Ceylon and South India, the present was hardly the time to proceed with the proposals in question and their consideration must be deferred pending a return to more normal conditions when the position of the Nellakotta Station will be more clearly defined.

4. Scientific Department of the Indian Tea Association.—

The Chairman of the Association, in correspondence with the Chairman of the Indian Tea Association, has come to an arrangement under which the annual contribution of the U.P.A.S.I. to the Scientific Department of the Indian Tea Association will, as from the 1st April, 1931, be reduced from Rs. 10,000 to Rs. 2,500.

5. Tocklai Course of Lectures.—

The Scientific Department of the Indian Tea Association placed two seats for the Senior's Course, commencing on 30th November, 1930, at the Association's disposal but it was not found possible for any Planters in South India to attend.

COFFEE.

1. **The Coffee Scientific Officer.**—Mr. W. W. Mayne has continued to work at the Balchonnur Coffee Station, under the direction of Dr. Leslie C. Coleman, Director of Agriculture, Mysore, and with the exception of a week's tour in the Shevaroy's last July to investigate spraying has done no further touring. The Coorg Planters' Association having passed a resolution in April, 1931, urging that Mr. Mayne be allowed to tour Coorg at least twice in the next twelve months to study Mealy Bug and Cockchafer in Coorg, it was approved by a General Committee Meeting that Mr. A. E. J. Nicolls and Dr. Coleman should meet to discuss arrangements for this tour and in accordance with their suggestions, the Executive Committee approved that Mr. Mayne should visit Coorg during July.

RUBBER.

1. **Staff.**—Mr. R. A. Taylor took over charge of the Rubber Experimental Station, Mundakayam, from Mr. Frattini on the 12th January, 1931, and Mr. Frattini's services with the Association terminated on the 31st January. An arrangement was agreed upon with the General Manager of the Travancore Rubber Company

whereby the Station will continue to draw its water supply from that Company's Aniekolam Estate, on payment of a small annual rent.

The services of Mr. T. R. Ramaier, First Assistant to the Station and in charge of Field Experimental Work, were dispensed with in May and he was given a month's salary in lieu of notice.

MADRAS, }
15th July 1931. }

C. R. T. CONGREVE.
R. LESCHER.
R. N. W. JODRELL.
A. E. J. NICOLLS.
H. J. WALMESLEY.

THE CHAIRMAN'S ADDRESS.

The Chairman then delivered the following Address:—

Since our last Annual Meeting, the Earl of Willingdon has assumed the post of Viceroy in this country. It will be remembered that some 6 or 7 years ago he was Governor of this province, and during his stay amongst us, he and Lady Willingdon proved to be very much the friends of the Planting Community. On your behalf, Gentlemen, I should like to congratulate him on attaining his present high position and to wish him the best of luck in the arduous work he has ahead of him. (Applause.)

The past year has been a most difficult one for all of us, as it has seen the markets for all our products steadily declining, till at the present moment the average price for South Indian tea in the London market stands at 7.81d., and the present price of rubber is under 3d. per lb. Coffee prices during the past season were from Rs. 13 to Rs. 15 per cwt. lower in India, and about 16s. to 17s. per cwt. lower in London than in the preceding year. Cardamoms and Pepper prices also fell heavily.

Whilst it is never wise to be too pessimistic, still the immediate outlook is none too bright. Over production on the one hand and reduced consumption on the other, due chiefly to the general world depression, are not factors which conduce to improved markets.

Tea.—In the case of Tea, at our last Annual Meeting, your Chairman remarked that he hoped the worst was over, but I fear he did not prove a true prophet, as the difference in the average price of this commodity between July 31st, 1930, and July 31st, 1931, is 4.83d. per lb.

The restriction scheme which was brought into effect during 1930 was not continued in 1931, due to insufficient support. There has been a great deal of talk as to the benefits of restriction on output, and there would appear to be two schools of thought, one in favour and the other against any form of artificial restriction, and it seems to me very difficult to express any opinion one way or another. Looking at the results of restriction in the case of Rubber and Coffee in the past, the present position of both products does not appear to argue much in favour of it, and my personal view is that in the case of all produce, or indeed of all articles whether grown or manufactured, the end must be the survival of the fittest, and the only healthy way to put matters on a sound basis is to increase consumption.

The Indian Tea Cess Committee are expending large sums in advertising Tea in America, Europe, India and elsewhere, and there can be no question that there are large potential markets still available for this product. The present imports into Russia are 100 million pounds less than they were in 1914. The consumption in the United States of America is at the present time only .75 lbs. per

head, and there is considerable scope for increased consumption in Canada and elsewhere. The head of one of the large firms in Canada, dealing in the sale of Tea, gave it as his opinion in 1929 on the possibility of extending the use of Tea in the United States, that its consumption could be extended without question, but that this could not be effected in a day. It certainly could be done by keeping the article continually before the public; make people think your article, and the demand for it will grow.

It seems to me, Gentlemen, that the Indian Tea Association and the U.P.A.S.I. should approach Ceylon to try and get them to join us in a combined advertising campaign for the sale of Tea. The present is an advertising age and it is only by extensive advertisements that we are likely to see that rapid increase in the consumption of this product that we all so ardently look for, and with a similar cess in Ceylon to that in vogue in this country, large additional funds would become available.

In India there are still vast possibilities for increased consumption, for the figures of the final estimate of the Department of Commercial Intelligence and Statistics show that consumption was almost doubled in less than 10 years. This seems to me to prove that the Indian Tea Cess Committee have done excellent work in the past, and there seems no reason why consumption should not double itself again in the next ten years, if continued advertisement is carried on.

Coffee.—With regard to the Coffee market, the valoration scheme in Brazil appears to have proved too expensive, and a new scheme has been introduced whereby an export duty of 10s. per bag is being levied, the proceeds of which are to be used for the destruction of stocks. Whilst this will probably reduce stocks to a large extent during the next few years, I cannot believe it will reduce production, in fact it appears to me that it will rather tend to increase it, as producers in Brazil may think that as stocks are reduced, prices will rise, and this will tend to encourage them to keep their present acreage in good order, and even encourage further extensions.

Coming nearer Home, India is to a large extent a Coffee drinking country, and I cannot but feel that with propaganda, its uses as a beverage could be largely extended, and I hope ere long some concerted action by the combined European and Indian Coffee Planters to advertise their produce in a larger way may be undertaken.

Rubber.—With Rubber the position is as bad as it possibly can be, and at the present time with the price at under 3d., practically every estate must be producing at a heavy loss. If only some method could be introduced for utilising Rubber economically for surfacing roads, it might be possible to use up very large quantities of this commodity, which would relieve the situation. It has been suggested that producers should guarantee a portion of their crop at a low price for a certain number of years, to encourage road constructing

engineers to experiment to a larger extent than at present, and this would appear to merit careful consideration.

One possible good which arises out of the present slump is to teach economy in estate management. During boom periods there is always a tendency to increase expenditure unduly, and it is only when the pinch occurs that it is realized how necessary it is to practise every form of economy.

Expenditure.—Turning to our Association itself, your Executive Committee during the past twelve months have studied every possible method of reducing expenditure, with the result that the present Budget shows a saving over the previous one of about Rs. 1,00,000 which is Rs. 58,600 less than last year's actual expenditure. I think a note of warning is necessary, as economy cannot be carried too far, and the time comes when efficiency suffers as a result, and I am sure none of us want to see our parent Association suffer in this way. Your Chairman in 1928 drew your attention to the way in which our Association had grown in ten years, and since that date we have continued to expand in every way; our acreage has increased to 221,660 acres, we have a well run Political Department, and at the present time the U.P.A.S.I. stands out as one of the largest and best organized Associations in this Presidency, if not in the whole of India.

Political.—Touching on the Political Department, it will be remembered that in 1928 after negotiations with the Madras Chamber of Commerce, the Madras Trades Association and others, the U.P.A.S.I. decided to employ a whole-time Political Secretary, and in January 1929 Mr. F. E. James was appointed. Whilst our Association agreed to bear the principal cost of this Department, other Associations both in Madras and the Mofussil agreed to subscribe a portion of the expenditure. During the past year, the whole question has been under consideration, and with the present suggested arrangement it is hoped that the Political Secretary may become the Secretary for the non-official European party in the Madras Legislative Council under the management of a Committee on which our Association is represented by our Chairman. Our annual contribution should be much reduced as a result.

It has constantly been asserted by a small minority that our Association gains nothing from having a whole-time Political Secretary, inasmuch as the majority of our acreage is in Native States, but I would ask those who argue thus to consider the value of adequate representation of the non-official European community in the various Councils in this country, especially with reference to the future when Provincial Autonomy becomes an established fact. Unless the European community in India are willing and ready to co-operate in the Government of the day, they cannot expect their Indian confrères to do anything whatever to help them. It appears to me that it can only be of mutual help and trust that any form of self-government in this country can be successful, and that it behoves

the European community to do everything possible to help towards this end. To touch more closely on the benefits which the Coffee industry, anyhow, has received from having a really efficient political organization, I would mention the total prohibition of the import of raw coffee into India. This most important measure to prevent the introduction of *Stephanoderes Hampei* has been passed by the Government of India, due chiefly to the representation of Mr. James, aided in a very large measure by the Agricultural Adviser to the Government of Mysore, and in itself should prove the most valuable Act passed by the Government of India for the Coffee industry of South India during the past decade. (Applause.) Our thanks are due to the Governments of India and Madras, to the Government of H. H. the Maharaja of Mysore, to Dr. Leslie Coleman and to Mr. James for their help in passing this measure. (Applause.)

I have just received information that the Malabar Compensation for Tenants' Improvement Act I of 1900 has been extended to the Gudalur Taluk of the Nilgiris. As most of you are aware, we have been trying to get this through for some years now, and it is largely due to Mr. James' hard work, that this important measure has now been passed by the Madras Legislative Council.

Coming to more general matters of interest, the past year has seen the Assembly of the 1st Round Table Conference in London. The important deliberations of this Conference are public property, and whilst it is too early to say anything definite, it is satisfactory to know that another conference is to meet shortly in London, at which the Congress Party will be represented, and we can only hope that as a result of their deliberations some form of Government will eventually be evolved which will put an end to the present state of unrest in India, and eventually prove of real benefit to this country. No country in the world can prosper when there is constant unrest, and the sooner peace is restored, the sooner we shall see a revival of trade, not only in India but in the whole world. The senseless murder of officials, the continued and increasing reign of terrorism, and the constant communal upheavals we have witnessed during the past year or so cannot conduce to the calm consideration of the future Government of this country, which is so necessary, if the forthcoming Conference in London is to accomplish anything. (Applause.) The difficulties to be overcome are colossal, and the thanks of the whole country are due to those disinterested persons who are spending most of their time trying to evolve order out of chaos. Our own European community is very well represented in London by three delegates, and the thanks of every European in India are due to them for their hard work in our interests. In this Presidency our thanks are especially due to Sir Edgar Wood who has thrown up his own important work in Madras to so adequately represent us in London. (Applause.)

Labour.—Another very important happening during the past twelve months has been the issuing of the Report of the Whitley Commission. As you all know, this Royal Commission came out

to India to study the position of Labour, and during their visit they took evidence from representatives of the U.P.A.S.I., and visited the Nilgiris, Anamallais and Coorg. There are several matters of very great importance to our Community in the Report, and in the event of legislation being introduced on the lines suggested by the Commission, it will be necessary for us to very carefully consider the results of such legislation and to be ready, if the need arises, to make proper and efficient representation to the Government of India.

I would refer you to the following points especially:—

The non-recovery of all travelling expenses incurred in getting labour to estates.

The non-recovery of all advances except from the first payment of wages.

The proposed weekly payment of wages.

The extension of the Workmen's Compensation Act to estate labour, and

The recommendations under the chapter dealing with health and welfare.

Whilst I feel that I but voice the opinion of all of you, when I say that we planters welcome anything in reason which tends to improve the status and health of our labour, still the above mentioned recommendations appear to me to be so far reaching as to require the most careful consideration of this Association, and I would suggest we approach the Indian Tea Association in order to secure their co-operation in any representation it may be considered necessary to make to the Government of India. (Applause.)

Scientific.—Turning to Scientific matters, as you all know, a sub-committee was elected in August 1930 to go thoroughly into the future of our Tea Scientific Department, and as a result of their recommendations a move was made to try and affiliate with the Tea Research Institute in Ceylon. A deputation of three members visited that island in December 1930, and met representatives of the Tea Research Institute of Ceylon, but unfortunately, due, I believe, chiefly to the depression in the tea market, nothing has materialized, and we are now in the position we were before.

At this meeting, the Executive Committee are putting forward a scheme for the future running of our station, and it is for you, Gentlemen, to decide whether you will accept its recommendations, or devise some other method of running our station, or of closing it altogether.

Personally, I think it would be a very grave mistake to close it down now, after all the work that has been done, and the large cost involved in the building up of it. (Applause.) Dr. Shaw has worked whole-heartedly for the benefit of the tea industry, ably assisted by Mr. Jones, and whilst for the present, due to financial stringency it may be necessary to keep a reduced staff, still there can

be no question that science in agriculture has proved of enormous benefit to every form of cultivation, and tea with its many difficult problems to solve is as much in need of scientific research as are any other forms of agriculture. When times improve, as they undoubtedly must, I hope to see an increased staff of scientific officers both European and Indian working together for the help and benefit of the tea industry.

Turning to Coffee, our great thanks are due to Dr. Leslie Coleman for the work he and his staff have done, especially with regard to *Stephanoderes Hampei*. As most of you are aware, he visited Java especially to study this pest, and it was due to his and the Government of Mysore's foresight that we now realize that whilst the pest is undoubtedly present in this country, its incidence is not so widespread as was feared, and it seems possible that with proper precautions, and the continued embargo on the import of raw coffee into India, it can be kept in check.

Mr. Mayne, who by the kind permission of the Government of Mysore and Dr. Leslie Coleman, still works at the Mysore Coffee Station, has been largely engaged in the study of leaf disease, and his deductions so far have proved most interesting. There is still, I understand, a vast amount of work to be done in the study of this pest, but it is to be hoped that in time to come when a complete history of the fungus is known, some cheaper and more effective method of dealing with it than by spraying will be evolved.

The study of the pests and diseases which attack coffee is an enormous one, which must take a very long time to complete, but it is to be hoped that as the result of Mr. Mayne's stay in South Coorg something may be done to find a method to combat the very serious attacks of mealy bug, borer and cockchafer, which threaten the coffee industry in that district. I think the question of increasing our own staff of Scientific Officers dealing with coffee should be considered, though the present time is possibly hardly the one in which to consider increased expenditure.

Turning to the Rubber Scientific Station, I fear that due to the desperate position of this industry, it may be felt necessary to close down work, but it is to be hoped if this has to be done it will only be a temporary measure. The Rubber industry were the pioneers in starting their own Experimental Station, and the good work done by Mr. Ashplant and his successors needs no elaboration by me. It would be a great disaster, if due to the continued depression in the rubber markets, this Station had to be permanently closed, as there are still a large number of problems affecting Rubber, which need careful scientific work for many years to come.

Motor Tax.—Turning to recent legislation, the Motor Vehicles Taxation Act III of 1931 was passed by the Madras Legislative Council during the past year, and all tolls were abolished as from 1st April 1931. This Bill, whilst proving of great value to the ordinary

users of the roads, seems to me to bear unduly heavily on certain forms of motor transport, especially on motor lorries used by our community for the transport of estate produce. Whereas before, in many cases, lorries were used almost exclusively on estate roads with only occasional trips to the nearest post or station, with the result that the taxation they paid in tolls was very small, now due to the present bill, the cost of running them has been increased enormously, and it appears to me that some steps are necessary to get amendments introduced in the near future to ease the present position. When tolls were in existence, all traffic, whether motor or country carts, paid their fair share towards the upkeep of our roads, but under the present Act, carts are apparently immune from any form of taxation. I think it is a generally accepted fact that a heavily laden cart running on wheels with very narrow tyres and without springs does a great deal of damage to roads, and I find it difficult to understand why under the new Act, no provision for taxing them was introduced. It would appear to the outsider that it would be a simple matter to register all carts, and if a small annual fee were charged for registration, the amount realized would be very large, and would help materially towards the upkeep of roads, and lessen the taxation of motor transport. It must be remembered that improved marketing of the produce of this country is bound up very largely in improved means of transport, and that every method of encouraging rapid motor traffic should receive encouragement from Government, but as it stands at the present time, with an import duty of 8 annas per gallon on Petrol, 30 per cent. Import duty on motor vehicles, and the high registration fee now charged, instead of encouragement, Government would appear to be trying their best to discourage any increase in this most valuable type of transport. (Applause.)

Communication.—With regard to Harbours and Railways, the Cochin Harbour is now a going concern, and steamers of large size can use it, in fact, I believe, a berth for ships up to 700 ft. in length has been constructed. To have an all the year harbour on the West Coast must be of great value to all of us as the majority of the planting area is situated on the Western Ghats, and the natural outlet for our produce is to the west. Next month a representative meeting is to sit in Madras to consider the question of the fourth stage of this important harbour, dealing with the erection of wharfs, and the construction of the railway across the backwater to the reclamation. Whilst nobody can question the advantages to be gained from this last stage of the construction of the harbour the chief point for consideration would appear to be the capital cost, the estimate for which, I understand, amounts to Rs. One Crore and it is this point which is now under consideration.

Up to the present, no passenger service has been started in Cochin but I think I voice all your opinions in saying that we trust arrangements will be made in the near future for a regular service of good passenger steamers from Cochin. This would be of great

benefit to a large number of people, and to the ordinary man in the street there appears to be no adequate reason why such a service should not be instituted.

It is satisfactory to note that the Cochin Durbar are undertaking the conversion of the present metre-gauge railway from Ernakulam to Shoranur into a broad-gauge line, and if and when a metre-gauge line is constructed from Trichur to Palghat to link up with the line now under construction between Pollachi and that town, with a third rail to allow of metre-gauge traffic passing between Trichur and the Cochin port, we shall have a really good railway service linking up many of the Planting districts in the South with the Cochin Harbour.

There are still a considerable number of important railways required, amongst which the Pollachi-Vannanthorai Branch Line, the continuance of the Shoranur-Nilambur line through the Wynaad to join up with the Mysore Railways, and the continuance of the line from Bodinayakanur up the Kumbum Valley, are of great importance. For the present, I understand funds are not available for these and other lines but it is to be hoped that in the near future, when money is available, their construction will be favourably considered.

The New Chord line between Trichinopoly and Manamadurai is now being used by the Ceylon Boat Mail, which shortens the journey between Madras and Colombo by about two hours.

During the past year a new line linking up Salem with Chinna Salem, a distance of about 51 miles, has been opened. This line will be of great value to the planting community, as it facilitates the movement of labour from Attur and Chinna Salem.

The rapid construction of feeder railways, aided by good motor bus and lorry service, must benefit the Agricultural population of this country enormously, and every possible step to encourage these means of communications should be encouraged by the Government of this country. India is still almost entirely an agricultural country and improved means of communication to outlying parts must reflect enormously on the economic welfare of the country as a whole.

It is satisfactory to note the general improvement in the roads of the Presidency, though there is still a great deal to be done to bring the surfaces into line with other countries. In Ceylon it is very noticeable the way in which tar has been introduced during the past few years, and in this Presidency a great deal of very valuable experimental work has been done with tarred surface in towns and elsewhere. It is to be hoped as time goes on, and funds become available, we shall see a large increase in the use of tar preparations for surfacing main roads, as experience has proved in other countries the value of this type of road construction.

It is with deep regret I have to record the deaths of the following members of our community during the past year:—

J. T. MORGAN, part owner of the Merthikhan and Honey Vale Estates, Kadur District, Mysore, on the 22nd August 1930 at Clairmont, St. Laurence, Jersey.

A. R. PARK of Barchinhulla Estate, Mudigiri, Mysore, on the 21st October 1930 at Hassan.

F. CAREY of Manaseh Tote, Yercaud, on the 19th November at Bangalore.

J. DELL for many years Manager of Messrs. Peirce, Leslie & Co. Ltd., Cochin, on the 19th November at Court Lodge, (Harrietsham) Kent.

W. H. F. LINCOLN of Chininhully Estate, Mysore, on the 18th March 1931, at Bangalore.

M. S. BEGBIE of Selaliparai and Pachamalai Estates, Valparai, at Valparai on the 28th July 1931.

R. O. HAMILTON for many years a Planter in Coorg.

I also have to record the death of Dr. K. Kunhikannan, M.A., F.H.D., Entomologist of the Mysore Government Agricultural Department, on the 4th of August 1931 at Bangalore.

To the relatives of the above, I tender our sincere sympathy and condolences on their loss.

Before closing I should like to say a word about our late Secretary, Mr. Waddington. As you all are aware, due solely to the need for economy, the Executive Committee decided to ask Mr. Waddington to retire. Mr. Waddington has been a well known figure of our community for very many years, and has been actively associated with this Association for a long time, first as a delegate from his district, and for the past 15 years as one of our staff. Mr. Waddington's personality impressed itself on everybody he came into contact with, his ready help was always available to anybody who required it, and his efficiency and knowledge of affairs have always been of very great help to our Association. No man has ever worked more whole-heartedly or disinterestedly for the good of the planting community than he has done, and I can only wish him and Mrs. Waddington many years of health and happiness in England in their well earned retirement. (Applause.)

It only remains for me to express my thanks to Mr. Waddington, Lt.-Col. Brock and Mr. James and the rest of our staff for their advice and assistance during the past year, and to the members of the Executive Committee for their whole-hearted support. As mentioned at the beginning of my speech, the past year has been a very difficult one for all of us, and it has only been through the ungrudging help of everybody concerned that I have found it possible to carry on. (Loud Applause.)

The Chairman:—I will now ask Mr. James, the Planting Member, to give his address.

The Planting Member.

Mr. F. E. James:—There is very little I have to say about the past year with regard to political matters, because for a greater part of the time I was ill and on leave, but I would like to thank the Chairman, the members of the Executive Committee and in fact the Association for their very great kindness and consideration to me during my serious illness.

On the whole, things have been remarkably quiet in the Presidency during the past year and there has been little legislative activity. There are, however, a few matters of special interest to us, to which I will make a brief reference.

The Bill for the abolition of Tolls was passed and received the necessary assent. I hope that tolls are now a thing of the past. The substitution of tolls by a provincial tax has hit many firms severely on account of the heavy incidence of the provincial tax upon motor lorries. It appears that while casting out the seven devils of toll exactions, seven other devils, in the form of increased taxation on commerce, were permitted to enter and this is a matter which, I suggest, needs further investigation. This Association, when it supported the abolition of tolls, never contemplated that motor vehicles should bear the whole burden of providing an equivalent revenue.

I am glad to be able to report that the Bill for the extension of the Malabar Tenants Improvement Act of the Gudalur Taluk passed through the Legislative Council at the last Session. It has received the Governor's assent and it is now only awaiting that of the Governor-General. Our thanks are due to the Hon'ble Mr. Campbell who sponsored the Bill, and while it is not all that we should like, it is better than nothing and may be of great value in the future.

One other local matter may be mentioned, and that is the decision of Government to withdraw their orders regarding the water tax which had been levied on estates in the Nilgiris, Malabar, Wynaad and the Anamallais. Our thanks are due to the officials of the Revenue Department who gave us every assistance during the negotiations.

The Whitley Commission has published its report and as it forms a separate item on the agenda, I will not deal with it now in detail. Political and economic considerations will undoubtedly postpone consideration of its recommendations for some time, but I suggest that the Association should study the proposals most carefully so that it may be in a position to define its views and make its suggestions when the proper time comes.

Much has happened in connection with the general political situation since I last addressed you. The Round Table Conference has

held its first meeting and is about to re-assemble. The Civil Disobedience Movement has been called off under the terms of the Irwin-Gandhi Agreement which provided for the participation of Congress in the Conference in London. In the meantime there has been a widening of the communal gulf and a steady growth of anarchical crime.

As far as the Round Table Conference is concerned, I still believe it to be the only way to peace and progress. Tremendous progress has already been made. Federation is in sight, and a large amount of agreement has been reached on fundamentals. Much of the discussions at the next meetings will centre round what are called "safeguards"—including defence, foreign affairs, the reserve powers of the Governors and the Governor-General, the Reserve Bank, the service of loans and Exchange Policy.

With regard to European commercial and trading rights, there is bound to be further discussion, and an attempt will be made to go back on what has already been decided. The Conference at its last meeting in January accepted the following paragraph in the Report of the Minorities Sub-Committee:—

"At the instance of the British commercial community the principle was generally agreed that there should be no discrimination between the rights of the British mercantile community, firms and companies, trading in India and the rights of Indian born subjects, and that an appropriate convention based on reciprocity should be entered into for the purpose of regulating these rights.

It was agreed that the existing rights of the European community in India in regard to criminal trials should be maintained."

Indian commerce does not hold itself bound by this, nor does the Congress, but I believe that agreement is possible and I hope, probable on this vital point, for many difficulties disappear when they are faced in a spirit of accommodation. I think we have reason to be grateful for the work of our British representatives—Sir Hubert Carr and his two colleagues—in this matter.

I would utter one warning, however. Whatever safeguards are accepted with regard to our trading rights, will not be worth the paper they are written on, unless they have behind them the sanction of India's goodwill. The interpretation and administration of constitutional formulae will lie in Indian hands and everything will depend upon the spirit of that interpretation and administration. While we must get our rights clearly defined, our best safeguard after all is the goodwill of the people of this country, and we must make up our minds to obtain and keep it. I believe it can be done by showing our willingness to help India to develop in her civic and political life and by organizing effective representation in the legislatures of the country.

The communal situation is distressing and the opinion is gaining ground that in the event of a failure to settle the differences, the British Government must declare its own policy, to be revised as and when Indian communities can agree on a common formulae.

We are naturally disturbed at the growth of anarchy and lawlessness throughout the country. Fortunately Madras is comparatively free from this reproach, but elsewhere the situation is more serious than dwellers in the South can possibly imagine. It is encouraging to notice that the Congress has, after considerable hesitation, not only published a resolution condemning violence, but has enjoined its various branches to engage in active propaganda against it. That is a welcome step, though if it had been taken earlier, it would have prevented much misery and bloodshed. It is my own opinion that much of this growing restlessness and violence is due to the absence of certainty and definiteness in the Government of India. It is true that in this transition stage, when matters are under discussion in London, the position is difficult. But it seems that Whitehall has abdicated in favour of Simla and Simla in favour of Whitehall and that the unfortunate provinces are falling completely between two stools. Therefore the sooner the constitutional question is resolved by the Round Table Conference and its decisions implemented by Parliament, the better. India needs wise and firm leadership in its Government. Firmness without wisdom may lead us to a desert as Lord Irwin has said, but wisdom without firmness will put us on the rocks.

There is one last but serious word I would say. It is suggested in some quarters that as a result of the breakdown of negotiations with regard to Mr. Gandhi's participation in the Round Table Conference, there may be a revival of civil disobedience. I hope Mr. Gandhi will go to London, and I believe he will. But it is well to be prepared for the worst, while hoping for the best and I say bluntly that a revival of civil disobedience will lead to such bloodshed in India as has not been seen since the days of the Mutiny. I cannot think that any responsible leader can contemplate such a step but there are elements in India to-day which thrive on disorder and civil commotion. But if such a step is taken, then I believe that you all share my fervent hope that the Government will take immediate and effective steps to stamp out the movement before it is allowed to get underway. This would not be repression, but common sense and it would be in the interests not only of the India of to-day but of the self-governing India of to-morrow. For self-government is nearer than many imagine. In a very short time India will be mistress in her own house, with all the preoccupations of a new householder. And these preoccupations will be all the greater if she is confronted with a violent revolutionary movement. That is why I ask you all to join in calling upon the political leaders in this Presidency to show an unbending opposition to the cult of violence in deed or word.

The future, politically, is uncertain. What is certain is that the British community in India will be confronted by many difficul-

ties during the next few years of transition. We can no longer depend on the external aid, either statute or on our fellow-countrymen in Britain. Thrown back upon our own resources, however, I believe, we can, by organization, alertness and a united policy of constructive co-operation with the progressive forces in this country make ourselves indispensable and efficient citizens of India. (Loud Applause.)

The Chairman.—I will now ask the Secretary to call the roll and check the names of the delegates present.

The Secretary then checked the names.

Executive Committee's Report.

The Chairman.—At the commencement of the meeting, I called your attention to the report of the Executive Committee, copies of which have been circulated to all the members.

Does anybody wish to speak on the report or to ask any questions on any point in the report which is not included in the agenda? If no member has anything to say, I would propose from the chair:—

"That the Executive Committee's report for the year ending 31st March, 1931, be and is hereby adopted."

The Resolution was carried unanimously.

Accounts—1930-1931.

The Chairman.—The next item on the agenda is the Accounts for 1930-1931 which have been circulated to all the members.

The question before the meeting now is simply a formal adoption of the Auditors' report and accounts. Questions relating to any particular expenditure and the accounts generally can be brought up under items 5 and 6 on the agenda.

I now call upon the Secretary to read the Auditors' report.

The Secretary.—The Auditors' report reads as follows:—

"We have to report that we have audited the Balance Sheet of the United Planters' Association of Southern India (Incorporated) as at 31st March, 1931, and above set forth and have obtained all the information and explanations we have required.

"In our opinion such Balance Sheet is drawn up in conformity with the Law and exhibits a true and correct view of the state of the Association's affairs according to the best of our information and the explanations given to us and as shown by the Books of the Association and the Returns from the Divisions.

(Sd.) FRASER & ROSS,
Chartered Accountants, Auditors."

The Chairman:—Has anybody got anything to say? If not, I should like to move the following resolution from the Chair:—

"That the Accounts for 1930-1931 be adopted."

The resolution was carried.

Provident Funds.

The Chairman:—The next item is the Provident Funds.

I should like to tell the meeting on behalf of the Executive that there is no question of the staff qualifying for a pension other than provided for by the Provident Fund Rules. With one exception, namely, that of Mr. H. Waddington, the Executive Committee has no intention whatever of even suggesting that any further pension besides the Provident Fund should be given.

I believe the Anamallai Planters' Association have got a resolution under this head:—

"That the question of the Provident Fund of Employees of the U.P.A.S.I. shall be gone into, and if it be considered that any member, now serving, would conceivably qualify for a pension, that arrangements be made to reserve for this now, and that a safe way to do this would be by making extra contributions to the Provident Fund."

Mr. Ireland Jones:—After what you have said, we wish to withdraw the resolution.

The resolution was, by leave, withdrawn.

Mr. H. J. Walmesley:—We wish to withdraw our amendment also:—

"That no member of the U.P.A.S.I. Staff, on retirement, shall be eligible for pension or any special gratuity over and above the amount at his credit in the Provident Fund."

The amendment was, by leave, withdrawn.

Sports Club.

The Chairman:—The next item is the Sports Club. As you know, the activities of the Sports Club have been suspended. The balance on hand is Rs. 1,374 which has been put in fixed deposit pending the possibility of re-starting the Sports Club some time in the future when times are better.

The four Challenge Cups for Inter-District Tennis, Inter-District Golf, the Ladies' Golf, and Men's Singles Tennis have been placed in the Bank for safe custody.

As regards the other two Challenge Cups that we had, the Veteran's Tennis Cup has been won outright by Mr. Fraser and the Ladies' Tennis Cup has been allowed to be retained by the last

holder, and the donor, Mr. J. J. Murphy, has said that, if and when the Sports Club is re-started, whether he has an estate left subscribing to the U.P.A.S.I. or not, he will give a new cup. (Applause.)

Our thanks are due to Mr. Murphy for his great generosity.

Does anybody wish to say anything on the Sports Club? If not, I pass on to the next item.

The "Planters' Chronicle."

The Chairman:—The Assistant Secretary took over the Editorship of the "Planters' Chronicle" from Mr. F. E. James in August 1930. At that time the "Chronicle" was not in a good position as it had not worked off some of the old advertising contracts which were not in a proper position and a certain number of advertisers had ceased to support the paper.

It was, therefore, necessary to effect immediate economies and also endeavour to obtain more advertisements. The former was done by adjusting the number of pages of reading matters to a correct proportion with the advertisement pages, and a further discount of 12½ per cent. was obtained from the Printers on the cost of paper owing to the fall of the same.

The general depression in trade had resulted in firms cutting down their expenses in every possible way and they were extremely reluctant to continue advertising, particularly at the new rates, and it was unfortunate that the time for renewing most of the contracts with them occurred in October and November.

By personally interviewing every firm with whom we did business and planning out a canvassing campaign to enlist new advertisers, the Assistant Secretary succeeded in getting a certain number of new contracts at the enhanced rate for the fortnightly Journal, amongst whom were some who had ceased to advertise in the "Chronicle" for some years. He was also successful in every instance, except one, in inducing firms to renew their old contracts at the enhanced rates.

In view of the criticism that has been levelled in some quarters about the Journal being run as a fortnightly, it would be as well to realise that at the present stage, advertising firms will not stand continual changes in the advertisement rates, neither will they pay more money by having double the number of issues to advertise in.

It has not been possible on account of extra expense to increase the size of the "Chronicle" or to introduce an improved cover design. Also the question of an advertisement index means the loss of one page that might be taken for advertisements and for that reason it has not been included up-to-date.

Every endeavour has been made to maintain a uniform publication, each issue dealing impartially with the three main products, Tea, Coffee and Rubber. Planting news in general and the views of the most prominent authorities on this subject have appeared regularly. Though it is impossible for an Editor to gauge the appreciation or lack of it, of his readers, in only one instance has criticism of an adverse nature been received. However there does appear to have been an increased interest shown in the "Chronicle" from the number of contributions received for publication and it is being more widely quoted.

It is satisfactory to record that the balance sheet for the financial year ending in March 1931, showed a profit of Rs. 96 for the year, after all expenses, including the bulk of the Assistant Secretary's pay, had been deducted.

At the present date, up to the end of July 1931, the excess of income over expenditure is approximately Rs. 300, a great improvement as compared with the corresponding period last year which showed a deficit.

I think, Gentlemen, our thanks are due to the Assistant Secretary for the very hard work he has put in for the "Chronicle." (Applause). He has had a difficult time owing to the trade depression and he has done extraordinarily well in showing a profit in face of what he had to contend with. (Loud Applause.)

The Whitley Commission's Report.

The Chairman:—The Anamallai Planters' Association has requested a discussion on this subject, but in view of what I am going to say, I think they will not pursue the question further. What I wish to say is that our Planting Member is going to issue a précis of all the recommendations in the report which affect the Planting Community, and it is to be circulated to all the Planters' Associations and others interested in the subject. The Executive Committee members, Associations and everybody who are interested, or are likely to be interested, will carefully consider all those questions and will send in the results of their consideration to the Secretary at as early a date as possible. After the replies are gone into by the Planting Member, the Executive Committee will then consider the whole question in the light of the answers received, and will draw up a statement which will be ready in case the matter comes up before the Legislative Council for Mr. James to deal with, or in case the necessity arises to fight the Government of India. In this way we will be in a position to know everybody's opinion and be able to put forward a proper case.

If these remarks meet with your approval, I do not think the Anamallais wish to bring forward any other matter in connection with this Report for discussion.

Harbours.

The Chairman:—The next item is Harbours.

As I mentioned in my Address there is going to be a conference next month to consider the fourth stage of the Cochin Harbour Construction to which the United Planters' Association has been specially asked to send a delegate. I should like to suggest that our Planting Member may be asked to represent us at that meeting.

Does this meet with your approval? We shall then leave this question to Mr. James and give him a free hand in the matter.

Roads.

The Chairman:—I would ask Mr. Davies to move his resolution.

Mr. P. W. Davies:—Mr. Chairman and Gentlemen, my Association has instructed me to move the following resolution:—

"This Association recommends that the Government of India, through the Government of Madras should give a grant of rupees half a lakh towards the first cost of the Nelliampathy Ghat Road, which road will serve considerable interests in British India as well as those in Cochin State."

The ground on which this resolution has been put forward is that the road has entirely been paid for so far by the Cochin Government. It also serves the British area which is about 155 square miles. In addition to this there is British territory at both ends of the road. There is British territory at the foot of the ghat also and so merchants in British India should benefit by the use of the ghat road. The Cochin Government has, we understand, actually applied to the British Government for a grant, but we are not aware of the exact amount that they have asked for. That is all I have to say.

Mr. H. J. Walmesley:—I second the resolution.

The resolution was carried.

Mr. J. H. Cantlay:—On behalf of my Association with regard to the Kuruvanathu-Kodaikanal Road, I would like to place on record our very great appreciation to the Government for granting the necessary funds for the carrying out of the improvements to this road. I would like to include in this connection the name of Mr. F. E. James who was of the greatest assistance to us in bringing this about and of Mr. C. R. T. Congreve, member of the Road Board, who also rendered much assistance. It is hoped that the maintenance of the road will be regularly and efficiently carried out in the future by those responsible. (Applause.)

The Chairman:—Mr. Nicolls has a resolution on the present Motor Vehicles Act which will come up under Roads, I think. With your permission, I will ask him to read it out

Mr. R. M. Nicolls:—Mr. Chairman, it comes up under two resolutions which I shall read separately with your permission:—

"That the U. P. A. S. I. represent to the Government of Madras the injustice of the present burden of taxation now placed upon motor vehicles used for commercial and estate purposes under the new Motor Vehicles Act."

The Chairman:—Gentlemen, this resolution which has been proposed by Mr. R. M. Nicolls and seconded by Mr. J. H. Ireland Jones is before you. Does anybody wish to say anything on that subject?

Mr. W. K. M. Langley:—Mr. Chairman, may I suggest that the words "more particularly lorries which are owned by private individuals" be added to the resolution. I do not think that the resolution as it stands expresses this point sufficiently. The people who are suffering most under this present motor taxation are the private owners of lorries who, as you remarked in your speech earlier, work their lorries entirely on estate roads. There are instances of this on the Anamallais, the Nilgiris and Wynad. I believe that a man working a lorry vigorously and carrying on ordinary transport on public roads under the new taxation is not really penalized more than he was under the old toll gate system. He had to pass an enormous number of toll gates in a single day, and although it would appear that he is paying a heavier taxation than formerly, the present taxation is no more heavy than it was under the toll gate system. What should be stressed is the fact that the private owners are far worse off now than they were when compared with the ordinary commercial lorries. The private owners who send occasional lorry loads down to the Coast and back to the Planting Districts, and which are working a regular transport for a matter of only two months or so, are the people who are heavily penalized in this way. The whole system of taxation requires very carefully to be gone into. The privately owned lorries suffer more particularly as compared with the ordinary commercial lorries. I think Mr. Nicolls must be aware of that as he is an owner of private lorries.

I, therefore, propose that the words "especially those lorries which are not plying for public hire" may be added on to the resolution.

The Chairman:—Have you any objection to those words being added to the resolution?

Mr. C. L. Greig:—I should like to oppose that, Mr. Chairman. This matter was discussed by the Nilgiri District Board and they found it very difficult to say why a private lorry should not pay the same taxation as a lorry plying for hire. I am not sure whether Mr. Nicolls is aware that the District Board has decided that it is impossible to differentiate between private lorries transacting their own business and lorries plying for hire.

Mr. R. N. W. Jodrell.—In certain districts lorries not plying for public hire can take out a license "for estate purposes only" and not for public hire. Such lorries I think should be made to pay less taxation than now.

The Chairman.—That is a local taxation and not under the Motor Vehicles Act. You are in favour of the resolution without the addition I take it. Does anybody wish to say anything more about it? Gentlemen, it seems to me that this is a resolution which might be left as it is. Mr. James will be taking the matter up. He knows exactly what we want and he will stress the importance of the estate lorry before anything else. Does everybody agree to that? I will ask Mr. James to do the needful.

The resolution was carried unanimously.

Mr. R. M. Nicolls.—I move the following resolution:—

"That the Motor Vehicles Act or the Local Boards Act be so amended as to allow for registration and taxation of vehicles other than mechanical."

Previously all carts or any other type of vehicle paid tolls. Nowadays they are totally exempted and I do not think any stress need be laid on the damage that they do to roads. We have already heard to-day about it.

I should like to commend this resolution to the meeting.

Mr. J. H. Ireland Jones.—I second the resolution.

Mr. C. L. Greig.—Why should there be any discrimination between the motor vehicles and the carts?

Mr. F. E. James.—There were two factors, I believe, which entered into the minds of the framers of the Bill. In the first place, it was expected that the revenue that would accrue from the tax on motor vehicles would be equal to the revenue which had accrued from the tolls. Secondly, there was a general feeling that if the tolls were abolished for motor cars and not for other vehicles, it would be a form of discrimination which might have unfortunate results. The other alternative was to institute the registration of all these vehicles, but I understand that the Revenue Authorities protested against that being done as it would impose upon them a burden of work which they were not prepared to undertake. Mr. Wright, I think, was present during the sittings of the Council when this matter was discussed, so he could probably tell the meeting more than I can.

Mr. W. O. Wright.—I do not think I have got anything to add to what Mr. James has said, except that the Revenue people objected to it from the point of view that they were not prepared to undertake the work. It was also pointed out that whatever form of registration was imposed, it would be very difficult for them to check

the carts and that it would be also very difficult to see that the registration mark put on the various carts was not taken off and transferred from one cart to another. In the villages parts of two or three carts are very often put together and made into one cart. It is very difficult to have any registration of these carts.

The Chairman:—I believe in other Provinces in India carts are registered.

Mr. W. O. Wright:—Those were the arguments in the Legislative Council.

The Resolution was carried.

Political Situation.

The Chairman:—The Coorg Planters ask for leave to withdraw their original resolution under "Political Situation" and to substitute another one in its place:—

Permission was granted.

Mr. A. E. J. Nicolls:—I move the following resolution:—

"This Meeting of the United Planters' Association of Southern India views with grave concern the apparent indifference displayed by the Government of India to the seditious and inflammatory speeches which are being delivered by Extremists throughout the country, and which are one of the main causes of the recent increase in anarchical crime, and urges the Viceroy and his Executive Council to take stern measures against those who thus incite others to deeds of violence."

I should like to explain, that the original resolution was altered in consultation with our Political Secretary, Mr. James, and was again altered because it was disapproved by another Association and we thought it would be unfortunate to bring up a resolution of this kind which would not be passed unanimously. The object of the resolution is obvious and therefore needs no explanation.

Representations have, from time to time, been made to the Government, setting forth the views of the European Community on the political situation, but so far the results hardly seem to justify the efforts made.

In almost every part of the country, Extremists have been allowed to hold meetings, at which they have deliberately preached lawlessness and violence.

The results are only too well known. For the past 18 months there have been frequent cases of law-breaking, rioting and acts of violence, such as: the Salt Campaign, Civil Disobedience, Chittagong, Cawnpore and other sundry outbreaks, together with the brutal murders of Col. Simpson, Messrs. Peddie, Lowman, Garlic

and Lieut. Hext, not to mention the attempts on the lives of the Governors of Bombay and the Punjab.

Further, Extremists, not content with the results of their poisonous propaganda, have actually organized meetings, at which the heartiest admiration has been expressed for the perpetrators of these crimes, and the deepest sympathy with them in the fate, which they have so well deserved.

At one time the policy of forbearance, adopted by Government, was excused, on the plea that it was necessary to try and create an atmosphere of peace for the R.T.C., and Europeans, through their loyalty, have therefore exercised the greatest restraint both in their actions and in their utterances.

Such a state of affairs cannot be allowed to continue and the time has surely come, when it should be impressed upon the Government, that there is a breaking point in the strain, which can be put upon the loyalty of Europeans in India, and that they are prepared to defend their rights and interests by every means possible.

A great deal more might be said on this subject, but I feel that it is unnecessary, for everyone, who has studied the political situation, will agree that the time has come for Europeans to take a firm stand, leaving no room for doubt as to what their attitude will be, if pressed too far.

I hope, that the resolution will receive the unanimous support of the Members of the Association.

Mr. E. W. Fowke:—I second the resolution.

The Chairman:—You have heard the resolution and the speech of Mr. Nicolls. Does anybody wish to say anything in this connection?

Mr. W. O. Wright:—I should like to tell the meeting that at the present moment the European Association is in correspondence with the other Associations on this very subject and it will be of great assistance if this resolution is passed. I think it would be better if we approach the Government on this matter—particularly in regard to the Press Act in Bengal being re-imposed in that Province.

The resolution was carried unanimously.

The meeting then adjourned for the day.

Second Day, Tuesday, 18th August 1931.

The meeting re-assembled at 10 a.m.

ARTICLES OF ASSOCIATION.

The Chairman:—I will ask the Anamallais' Association to move the resolution which stands in their name.

Mr. Eric Johnson:—My Association has put on the agenda a resolution which reads as follows:—

"That the Articles of Association be so altered as to allow for any interest or Company voting on its own acreage basis at the Annual General Meeting of the U. P. A. S. I., District representatives voting for those not otherwise represented"

and it gives as its object "that an opportunity should be made for full discussion on this subject, that the terms, as above, do not fully cover the possibilities arising from such alterations to the Articles of Association." I hope that this makes it quite clear that we ask for no immediate decisions but that we do hope for a discussion of the principles involved and possibly after the general wish as to principle is known that the whole question be referred to the General Committee for investigation and consideration. It is general knowledge that the representatives of sterling companies in London are not entirely satisfied with U.P.A.S.I. as it stands, and I think I am right in saying that planters in general share their opinion, and the situation is more or less that we are faced with control from London on the one hand and resignations from planters on the other.

It would be as well to attempt an analysis of the U.P.A.S.I. to try and find out what has brought about this unfortunate position, we know what splendid work was done in protecting planting interests during the war and it has only lost some of the confidence of its subscribers in the last few years. The unit of the Association is the District in which owners of all products meet for their mutual benefit and for combined action, and it is obvious that they can only handle successfully subjects which are of common interest. An Association would not take up the furtherance of an individual's business unless the case was one which might affect any member at any time. The District Association looks after local affairs, and it sends its representatives to the parent Association whose business is to promote and protect in all parts of the world the interests of the various planting industries carried on in Southern India. Here then we have all owners of all products represented, and here the parent Association stands to look after their common interest. We hold that this principle has not entirely been maintained and that the Association in running all its sub-departments has been so

busy with them that its energies have been of necessity confined to such an extent to interior or domestic work that it has not been able to keep up with outside events and that while it spends so much time on these departments, which do not in many cases consist of all members, its utility has been seriously impaired. I think that this contention is borne out by the very small amount of reference to the General Committee of the Association. This Committee represents all the units and elects an Executive Committee representing products to deal with urgent business. I should imagine that the Executive Committee is an extremely hard worked body and it at the present time controls all sub-departments, but as far as I know from experience and enquiry the General Committee is practically never referred to which could hardly be the case if the Association were dealing with much outside work. The situation is therefore that in spite of the importance and size of this Association the only opportunity given to units to express their views is at this meeting, which should be purely formal and more for the review of a year's working and for the ratification of agreements made by the General Committee than for debating new subjects.

And now, I come to what I think makes re-organization essential, I refer to the report of the Whitley Commission. Whether the suggestions made in this report are made law or not, they are made by one of the finest Commissions of the time. Their work should stand and their report be a reference book to all employers when seeking guidance. Running through the whole report is praise for organized industry, and reiteration of the principle that organized industry should make the move in looking after labour, and that any Government preparing to take action should always be closely guided by the representatives of the industry concerned. Nothing could be fairer and more sensible and it would be suicidal to ignore the opportunity given, for by really going into all matters thoroughly we can put our house in order. By doing what is necessary we may forestall legislation and by working hand in glove with Government satisfy them that our enlightened self-interest is sufficiently strong to make us good employers and our organization equally strong in seeing that the necessary adjustments are carried out. I am afraid that to bring this Association to the required pitch will mean that Districts must take a much more active part in its work, perhaps the General Committee must meet more often which will cost more, but in getting efficiency there must be expense, and the ultimate cost to all of us incurred by lack of organization may be as thousands when compared to tens spent on organizing in order to retain our unity. Recently we have all been faced with a crisis which needed action, with a fall in the cost of living, most of us thought that a reduction in rates of pay and advances was possible and necessary, but in all the discussion on the subject I never once heard it suggested that the handling of this was the Association's job, but when we are faced with Government's proposals for the abolition of advances and for weekly pay we must have combined action and all negotiations

and agreements must go through the Association, and it seems quite obvious that if the Association could not handle the comparatively simple task which was set before, it will need great strengthening to handle the extremely difficult one that lies ahead. I make these suggestions. We are threatened with control from London unless we organize to suit modern conditions and we are faced with being found wanting by Government as an organized industry in the near future. It is clear that something must be done. Shall we endeavour to work the present constitution as it stands, by making the General Committee a live body, shall we plan a constitution like that of Ceylon where proprietors and planters run parallel Associations and combine at the top, or shall we let U.P.A.S.I. combine proprietors and planters in an Association giving the former the right to safeguard themselves by voting for themselves at this meeting as proposed by my Association?

Mr. H. J. Walmesley:—I second the Resolution.

Mr. G. R. Strachan:—With your permission, I should like to withdraw the original amendment and substitute the following in its place:—

“That a Sub-Committee be appointed to go into the whole question as outlined by the Anamallais Association's resolution, and that such Sub-Committee considers the possibility of re-organization more or less on the lines of the Indian Tea Association.”

[Permission was granted.]

While my Association supports the general principles of the Anamallais Association's resolution, we are of the opinion that it does not go far enough, and it seems that the time has come when it is advisable, I might almost go so far as to say necessary, that the affairs of the parent Association, should be administered by practical business men. By this I do not admit that the average planter is lacking in business ability, but our job is such that we have not the facilities to enable us to give the administrative work of a large and important Association the necessary attention, and it seems to us to be obvious that such work should be undertaken by our principals. We must admit, that the present method of conducting the affairs of this Association leads to duplication of work and waste of time in, *inter alia*, referring back first to District Associations and then to the firms interested, any important amendments which may be brought forward at one of our Annual Meetings. Again we are liable to have our policy reversed by the South India Association in London. In other words with the exception of private owners, we have no real power to act, and my Association contends, therefore, that it would be infinitely preferable to have the affairs of the Association administered by representatives of the firms and business Houses concerned who, after all, put up the money, retaining, of course, the District Associations for conducting our

own affairs and to act as advisory committees to the main Association. This is the principle adopted in North India and I do not think we can do better than to follow their example.

Mr. A. E. J. Nicolls:—I second the amendment.

Mr. H. J. Walmesley:—In both speeches, references have been made to the South Indian Association. It seems to me that, if either the South Indian Association or the sterling companies wish to see the U.P.A.S.I. re-organized, the suggestion should come from them.

Mr. L. Newcome:—I oppose the resolution. I think we should look with great suspicion on any direct interference by Companies because it has been built up by the character of individual planters. It holds its present prestige and influence by the same means. Any company is already presumably represented on this Association according to its powers in any one district by the delegates elected in a proper and democratic manner. It would be particularly harmful at present if the idea got about that the U.P.A.S.I. was very largely or directly influenced by the mass of Company shareholders in England. It might damage the prestige and usefulness of a great majority of the planters from Mysore, Coorg and Shevaroy. They may say that they are willing to submit to the ruling of the present U.P.A.S.I. but not to that of any company or companies whatsoever. A point was made that it would ginger up the General Committee, but it would end in taking its power and influence away. I quite agree that the General Committee wants gingering up. The General Committee is essentially the U.P.A.S.I. and owing to their not pulling their full weight, an enormous amount of extra work has been thrown on our Executive Committee. My Association opposes this resolution.

Capt. E. H. A. Travers-Drapes:—I support everything that Mr. Newcome has said. The amendment runs rather on the lines of the original resolution and the two cannot be dissociated from each other, but if this amendment goes through, it will, of course, for the present, only mean that a Sub-Committee will be appointed to go into the matter. But, I take it, that if that Sub-Committee decides that the Anamallais Planters' Association are to get what they want, then you will have a position where a company, I think, will come down to this meeting and vote as it likes, very probably, against the wishes of the District Associations. Now, I think, such a position is absolutely intolerable. If there is to be any loyalty towards the District Associations, the companies, no matter how much they may be against, must subordinate their interests to the majority as all of us are ready to do. I can say nothing more.

Mr. R. M. Nicolls:—If I have heard aright, I think Mr. Johnson referred to the outside interests which the Association has not had the time to look to. Might I ask Mr. Johnson to give

instances where the outside interests have been excluded, and if so why did not the delegate from his Association draw attention to it?

Mr. Eric Johnson:—I had instructions to talk about principles and not go into details. We are ready to support the amendment for the appointment of a Sub-Committee because we think that the Sub-Committee can go through all that. We did not bring any instances at all with us.

Mr. R. M. Nicolls:—I think a statement such as that must be substantiated. We want full discussion on the subject. Mr. Newcome said that the General Committee wanted gingering up. Well, I cannot quite follow what he means by that. Might I ask him to explain?

Mr. L. Newcome:—I do not know how many meetings the General Committee has held during the last year, but, I think, very few. The general impression is that the General Committee have not taken upon themselves their proper duty in initiating reforms, for instance, when doing the actual spade work. Take the useful economies that have been initiated last year—one may say that it is the entire work of the Executive Committee. The Executive Committee have an enormous amount of work to do and they do that enormous amount of work because, I maintain, the General Committee, which after all is the U.P.A.S.I., in that sense has not been functioning. The Executive Committee have had to initiate all the policy, and not only that, but to carry out most of the details.

Mr. H. J. Walmsley:—With reference to gingering up the General Committee, is not the General Committee the District Associations? Is it not the District Associations that want gingering up?

Mr. R. N. W. Jodrell:—My Association feels that, if any alterations to our rules are required on the lines of the original resolution and the amendment, it is perfectly possible, for our members, our firms and our business houses, through our existing organisation, to make all the changes they require. They have at present probably the control of the majority of the acreages, and if in a constitutional way they wish to make changes, it is possible for them to do so through our present Association. They can make themselves felt in a correct way through the District Association and so have a bearing on this meeting.

Mr. R. M. Nicolls:—My Association was against this resolution as put up, but as it is a matter for discussion, they expressed the view whether it would be possible for the delegates to record a minority vote which, when it arrived here, might become a majority vote. They were not quite clear as to whether it was possible at all, but as a matter of argument it is a subject for discussion whether such a vote could be possible, the District Associations to send up a minority vote which in this Association might become a majority.

vote? If this is to be put up to a Committee and the Articles of Association are to be altered, they would like to know if such a consideration would be possible.

Mr. J. H. Cantlay:—My Association is against the Anamallais resolution. It considers that the U.P.A.S.I., is a federation of the districts and does not recognize the individual state. The District Associations should first record their proposed views and then report at the General Meeting.

Mr. H. B. MacPherson:—My Association is against this amendment as it will take away all the authority out of the District Associations. It will also muzzle them when it was always their privilege to have freedom of speech.

The Chairman:—Before I put the amendment to the open meeting, I should like to state that the points which have just been brought up and which you wish to consider, as far as I can make out, are as follows:—

(1) If the Agents and Owners require any alteration in the constitution of this Association, they are in a position to say so.

(2) That the Indian Tea Association, I understand from people who have seen it, is an entirely impersonal body in which no person is allowed to speak. The planters may attend the meeting, but they simply sit down and have no say in anything. Do we require that?

(3) The difference between Assam and South India, is that we have a very large number of proprietary planters and small companies, who are probably absent in Assam.

(4) The danger, if companies and proprietors are allowed to vote separately, of a disintegration of District Associations. This would mean that they will lose touch entirely with the people in their districts, who may very probably refuse to do anything they are asked to, or be in any way bound by the rules of the Association, because now they can come down here and vote on their own lines without reference to anybody else.

These seem to me to be the points which have been brought out in the discussion to-day and I would ask you to think about them very carefully before I put this to the open meeting which I propose to do in one minute.

Mr. W. K. M. Langley:—There is one other point which Mr. Newcome has made and which occurred to me as well. Under the new Indian Constitution when any matters like this crop up in an Association, the new Indian Government will not feel disposed to discuss matters with people who claim to exercise control in London over matters out here. They will claim to discuss matters entirely with the representatives of the Association out here and the planters

out here, and will expect them to be in a position to ratify on their own any agreements made. I think it would be a very dangerous thing to leave them out of consideration. That is the point which Mr. Newcome has made.

The amendment proposed by Mr. Strachan was lost.

The Resolution proposed by Mr. Eric Johnson was then put to the meeting and lost.

RULES

The Chairman:—There are two Rules which were passed by the General Committee Meeting yesterday morning, which have to be confirmed at this meeting. I propose from the Chair:—

"That this Meeting confirm the amendments to the U. P. A. S. I. Rules of the Labour Department passed by the General Committee on the 17th of August, 1931."

The Resolution was carried.

The Chairman:—A second resolution is proposed by Mr. H. J. Walmesley and seconded by Mr. Jodrell:—

"When declaring acreage for any one year, District Associations may reduce their previously declared area on account of areas actually abandoned. The word 'abandoned' shall be taken to mean:—

- (a) any revenue bearing area from which no crop is harvested, and
- (b) immature areas on which no agricultural operations are conducted,

during that financial year in both cases."

After considerable discussion, it was carried by your committee and it has now got to be confirmed,

The Resolution was carried.

The Chairman:—There is now a resolution before the meeting proposed by the Wynaad Association which reads as follows:—

"That Rule 14 of the U. P. A. S. I. Labour Rules be amended so as to exclude from the definition of a Planting District any such District where the estates situated therein have ceased to function in employing their usual labour force."

Mr. J. H. Cantlay:—I second it.

Mr. I. W. Finlayson:—With your permission, we should like to slightly alter the wording of the Rule. We should like to withdraw the resolution and substitute the following in its place:—

"That Rule 14 of the U. P. A. S. I. Labour Rules be amended so as to exclude from the definition of a Planting District the areas shown under Malabar (1) and (2) in the existing Rules."

Permission was granted.

The reason for the substitution is that Malabar is the area we are particularly interested in. Since coming here, we have talked the matter over with the West Coast Association and, I believe, Mr. Walmesley has a suggestion to make regarding this knotty problem.

Mr. H. J. Walmesley:—The amended resolution of the Wynaad Association affects no one except the Wynaad Association and the West Coast. We are the ones interested in it. I do not see why we should take up your time here as the matter only affects the two Associations and, I think, if we send two delegates each who could meet and come to some working arrangement, it will be all right. If the Wynaad Association agree to that, they may withdraw their resolution. It will save everybody's time and I feel that this difficulty can be got over.

Mr. I. W. Finlayson:—We are quite willing to withdraw the resolution and take up the course suggested.

The resolution was, by leave, withdrawn.

COPPER SULPHATE.

The Chairman:—The Shevaroy Planters' Association have a resolution on this subject which reads as follows:—

"In view of the heavy fall in the prices of copper, the U. P. A. S. I. do take up the question of the present high price charged for copper sulphate at the next Annual General Meeting with the object of getting the present price reduced."

Capt. E. H. A. Travers-Drapes:—There is very little to say upon this point. It is a resolution merely asking the Association and the firms interested to do what they can in getting the prices of the copper sulphate reduced. The price of copper has fallen, I think, by about 46 per cent., while the prices of copper sulphate are almost the same as they were before this fall, and I would ask the Association to give us, who are so interested, their support in this resolution.

Mr. L. Newcome:—I second it.

Mr. E. W. Fowke:—There is a fall not only in the price of copper sulphate, but also in the price of block tin and lead and other packing materials. The price of tin is charged out here at Rs. 2 per pound. The price in London at the beginning of July 1917 was Rs. 1.378 or £106 per ton. The price here for 1919 was Rs. 2.240 per ton. In the case of lead, the lead sheets cost Rs. 370 or Rs. 422 according to the weight of the sheet. I move the following amendment:—

"In view of the heavy fall in the costs of raw materials, the U. P. A. S. I. be asked to take up the question of a reduction in the prices charged for Copper Sulphate, Block Tin and Lead for packing materials."

Mr. A. E. J. Nicolls:—I second it.

Capt. E. H. A. Travers-Drapes:—I may say that my Association will be only too glad to add Block Tin, Lead and other packing materials in which the other planters are interested.

The resolution was, by leave, withdrawn in favour of the amendment, which became the substantive proposition.

Mr. W. K. M. Langley:—It seems to me that it is a pity that the resolution has been put in this way. I am entirely in favour of it, but it seems to me that Capt. Travers-Drapes has put the cart before the horse. The first thing you should do is to reduce, as far as possible, the cost of the materials. Everybody all over the world is in the same boat, whether producers of tea, coffee or rubber, or whether they are manufacturers of copper sulphate. Everybody all over the world is willing to sell whatever they possess or manufacture either practically at cost or even below cost and, I think, there must be factors regulating the cost of copper sulphate which are probably unknown to Capt. Travers-Drapes and are certainly unknown to me. It seems to me that in the first place we should consider what contributes to the cost of copper sulphate. The most important item which it seems to me should be reduced and which eventually we might possibly get reduced, is the question of duty. Now duty on copper sulphate is 20 per cent. on the Tariff valuation of Rs. 18-8-0. That means on the copper sulphate a cost of Rs. 3-10-0 a cwt. on duty alone. If that comes along, I think the object of Capt. Travers-Drapes' resolution will be met. I think a year or two ago a resolution was passed urging Government to remove the duty on copper sulphate used exclusively for spraying purposes and it is rather a pity that that resolution has not been pressed year after year until we got satisfaction. I would give you an instance of a similar duty being reduced on "Wattle Bark." The Madras Chamber of Commerce passed resolutions year after year and eventually they got it removed entirely. We should be occupying ourselves to much better advantage if went on pressing Government to abolish entirely the duty on copper sulphate used for spraying and agricultural purposes rather than passing a vague resolution which would hold the planters to ridicule. Now that is as far as copper sulphate is concerned.

Personally, I regret that Mr. E. W. Fowke's resolution on the subject of Block Tin was not brought in first instead of the copper sulphate resolution which I maintain is of much more importance. I did not quite catch Mr. Fowke's figures, but I wonder if he has taken into consideration Rs. 250 per ton duty a year in this country. I do not know whether he included that in his calculation. I do not think you will get the duty on block tin removed. It is used for soldering tea chests and the cost in this country is infinitesimal. Therefore it is rather a pity to introduce the subject of Block Tin in a resolution, which, I submit, is of much less importance than copper sulphate. It would be much better in connection with copper sulphate that we get the duty removed first rather than to call upon the manufacturers of copper sulphate all over the world to give consideration to the planters of Southern India.

Capt. E. H. A. Travers-Drapes:—May I suggest that, if permission can be obtained from the meeting, Mr. Langley will put up an additional resolution on the subject of the removal of duty on Copper Sulphate?

The Chairman:—In the meantime we will get on with the first one, and possibly Mr. Langley will do that.

The amendment proposed by Mr. E. W. Fowke was carried.

COFFEE.

The Chairman:—I should like to read out to you the following communication which arrived this morning and which may alter the resolution of the Nelliampathy Planters' Association:—

"The undersigned coffee curing firms beg to advise as from the 1st of July, 1931, that the rate for full curing and shipping in bags is reduced by Rs. 5 per ton. Please note that all other rates which include packing in bags are similarly reduced."

This is signed by the Anupura Coffee Works, Aspinwall & Co., Peirce Leslie & Company and four other curing firms.

Mr. P. W. Davies:—I may point out that the reduction compares very unfavourably with the increase in rates made between the years 1920 and 1928. As far as I can make out during those years the rates were increased twice. First by Rs. 7-8 per ton and 6 or 7 years later there was another increase of Rs. 2-8, the total increase being Rs. 10. In the circumstances mentioned, I should like my resolution to be put to the meeting and I hope some further reduction will be made. I move:—

"This Association, on the assumption that curers will have been able to reduce their expenditure on labour owing to the present low cost of living, requests all curers to give an additional proportionate relief to the planting community."

Mr. C. L. Greig:—I second the Resolution.

Mr. L. Newcome:—In view of what has been said is there any chance of further reduction?

Mr. W. K. M. Langley:—I am afraid I do not think there is any chance of further reduction and I will give my reasons if you like, but it will take a little time to do so.

Mr. L. Newcome:—It would be interesting to hear those reasons.

Mr. W. K. M. Langley:—Well, this resolution as it reads is to the effect that curers be asked to reduce their rates on account of the present low cost of living which presumably means a reduction in labour costs. I conclude from this that it is not generally known that labour only represents a comparatively small part of the cost of any curing establishment. There are many other costs which go to make up the total cost of curing which necessitates the charge which is levied by the curers. First and foremost is the cost of establishment including European supervision. Planters quite rightly insist that there should be a European Superintendent in charge of curing yards and I think I can safely say that curers consider that there is an implied undertaking to that effect. Well, that alone costs a considerable amount. Then there is the wastage and depreciation on crop bags. Many planters and especially our friends in Mysore insist on the curers sending them new bags for crop and I assure this meeting that the wastage and depreciation

in the shape of wear and tear on crop bags is actually just about equal to the total cost of cooly labour in the yard excluding actual cost of garbling.

Then there is another item of cost which has cropped up comparatively recently but which is steadily increasing and that is the additional handling, which means considerable inconvenience and additional expense, arising from the modern system of sending a great deal of coffee down for curing in small quantities in motor lorries. In the old days when all coffee came down in carts a large string of carts came in at one time and this was very much more easily handled and proportionately at less expense than small quantities coming in from day to day by lorries. This is perhaps not a very great expense in itself but it is one of the many items making up cost of curing which go to increase the total cost.

Another new item of expense though admittedly a comparatively small one and one which all curers gladly meet is the necessity for fumigation of crop bags before sending them up to estates in order to assist in checking the spread of *Stephanoderes*.

There are several other items which now represent appreciable expense which did not exist before the war. The provisions of the Factory Act are a cause for considerable expense in connection with machinery and labour in a curing yard. There is also the Workmen's Compensation Act. Presumably every curer insures in some way or other against the provisions of this Act. This insurance is not cheap and in fact I estimate that the cost of this item alone represents the profit on curing a considerable number of tons of coffee. Taxation, both Imperial and Municipal, is now very considerably increased and the latter particularly threatens to go on increasing.

To come now to labour rates, these are now 50 per cent. higher than the pre-war rates and so far I regret to say that it has not been possible to reduce labour costs appreciably on the Coast. But even if it should be possible to make say a 10 per cent. reduction on labour costs in a curing yard this would only mean a reduction in the total cost of curing to the extent of about Re. 1/- per ton. That is not the sort of reduction that the mover of this resolution, I gather, would be satisfied with.

Now to come to what the mover describes as a very heavy increase in curing rates in recent years. I may remark that, excluding the cost of gunnies, the charge for curing in 1910 was Rs. 32-8 per ton which was increased in 1920—a year of very high prices—to Rs. 37-8. When in 1927 the full curing and shipping rate was increased owing to the high price of gunnies the rate excluding bags remained at Rs. 37-8 and it still remains at Rs. 37-8. It is now exactly Rs. 5 per ton more than in 1910 and considering the various increased costs to which I have alluded I honestly do not think that this is a very excessive increase.

Therefore, you will see, Gentlemen, that it is extremely difficult to reduce cost of curing to any appreciable extent. But fortunately, or perhaps unfortunately as far as our friends interested in Jute are concerned, the cost of gunnies has come to

our assistance in this matter. It is admitted that the cost of gunnies has gone down to a very considerable extent and though we cannot expect prices to remain as low as they are at present, yet, nevertheless, it is to be hoped that they will never again reach the appalling figures of from 1920 up to about 1927. After going very carefully into the figures therefore we came to the conclusion that it was possible as from 1st July of this year to make a saving and thereby reduce the cost of curing so far as gunnies were concerned. This saving we have had no hesitation in passing on to the planter in the shape of this reduction in the full curing rate including bags to the extent of Rs. 5 per ton.

Mr. P. W. Davies:—Mr. Chairman, in view of Mr. Langley's explanation, I would like to withdraw my resolution.

The Resolution was, by leave, withdrawn.

IMPORT DUTY ON COPPER SULPHATE.

Mr. W. K. M. Langley:—I would like to move exactly the same resolution which was moved by Captain Travers-Drapes in the year 1929:—

"That in view of the importance of encouraging the suppression of agricultural pests, this Association do reiterate its request that Copper Sulphate imported into the Madras Presidency for Agricultural purposes be exempted from Customs duty."

Mr. E. W. Fowke:—I second the resolution.

The Resolution was carried.

TEA.

The Chairman:—The Mysore Planters' Association wish to withdraw the resolution standing in their name and to substitute another one in its place.

Permission was granted.

The Chairman:—I have some figures which, I think, might be of interest as regards the imports of tea.

In 1928-29 the total imports of black tea came to about seven million pounds and in the year 1930-31 they dropped by about three and a half million pounds. For the first three months—from the 1st of April to the 30th of June 1931—imports were 300,000 lbs. less than during the corresponding period of last year.

Mr. E. W. Fowke:—I move the following resolution:—

"That this Association strongly urges the Government of India to increase the present import duty on Tea into India from 20% ad valorem to 30%, keeping the Tariff values as at present. This duty to be a temporary protective measure to help the tea industry of India through its present grave crisis."

Mr. C. L. Greig:—I second the resolution.

Mr. E. W. Fowke:—The argument which I consider to be in favour of this resolution is that all the money for foreign teas

sold in India leaves the country, and if we get this duty passed the amount of money we sell the tea for, will stay in the country. I quote from the "Madras Mail" as follows:—

"It is not the function of the Indian Tea Cess Committee to deal with tariffs, that is the work of the Planting Association, and these may fairly claim, as they do claim, that it is most unfair that Indian Tea Exporters should pay a cess of annas six on every one hundred pounds exported for purposes which benefit cheap foreign teas imported into this country. The Tea Industry has long urged the imposition of a protective duty on foreign teas entering India, but so far without success. Yet that tea is reaping the benefit of propaganda which the Indian Industry does, and will do so increasingly unless the Government realise the unfairness of the present position. Sir George Schuster is said to be seeking opportunities for raising further revenues; a substantial import duty on foreign teas entering India is one which would be generally approved; it would eliminate unfair competition in the Indian Tea Trade and assist an Industry which is definitely Swadeshi. The case for such a duty is so obvious that no elaborate arguments are required to commend it."

The Resolution was carried.

RUBBER.

Mr. H. J. Walmesley:—I move the following resolution:—

"That whereas the Travancore Government has recognised the necessity, in the present economic crisis, of relieving the burdens of taxation on rubber estates by a remission of land tax, this Association requests the Madras and Cochin Governments to grant similar relief as early as possible."

I do not think it is necessary for me to say very much about this. We all know the position of rubber. Already a majority of Rubber Estates have had to close down and there is not the slightest doubt that the remaining estates will also have to close down very shortly. Further, the Indian owned estates which claimed to work cheaper than what we do, have been closed down to a great extent and the remainder will be closed before very long. We approached the British Government before and they refused to do anything. Since then the Travancore Government have re-considered the question and after going into the question thoroughly, they have sanctioned the reduction of land tax from Rs. 2 to Rs. 1. We have every right to ask other Governments to do the same. (Applause.)

Mr. H. B. Macpherson:—I second the resolution.

The Chairman:—The approximate area of Rubber represented by this Association in British India is 7,338 acres and in Coorg 1,230 acres and so the Government will not be losing a great deal by granting this request.

The Resolution was carried.

DIRECTOR'S REPORT.

The Chairman:—The Director's Report on the working of the Labour Department for the year ending 1930-31 has been printed

and circulated to all members. Have any delegates any questions to ask or any remarks to make on the subject? The Director will be happy to answer them and I should propose in that case to go into committee.

Mr. L. Newcome:—Although the price of foodstuffs has gone down, I see no alteration in the wages of bungalow coolies and so on. Under the item "Peons" a sum of Rs. 20,000 is shown.

Lieut.-Col. C. H. Brock:—As regards the bungalow coolies this allowance has always been a fixed one, which in most cases is Rs. 20 except where we have got our own bungalows when Rs. 30 is allowed.

As for the peons, their pay has not been reduced. Everyone is aware that the Executive Committee said that no Indian staff drawing under Rs. 30 should have their pay reduced. They are on low pay and it is not easy to get them. Except one or two cases, there is not a single peon getting more than Rs. 15 a month. He has a fairly responsible job. He has to carry money about and to account for it. The average pay of the peons is only about Rs. 13-8-0.

Mr. L. Newcome:—Thank you, Sir.

Mr. R. N. Jodrell:—May I ask the Director of the Labour Department whether during the year many instances of illegal gratification have been discovered by the staff in the Department?

Lieut.-Col. C. H. Brock:—Illegal gratification is a thing which it is very hard to discover at all. Actually during the whole time that I have been the Director I have been only able to prove four cases. There is no doubt that it does take place as it does in every other Department in this country, whether Government Department or Commercial Department, but as you know it is almost impossible to detect, and I have been only able to prove four cases in nine years.

Sir Fairless Barber:—May I ask the Director if he shares the feeling that "illegal gratification" is getting worse year by year?

Lieut.-Col. C. H. Brock:—I really cannot say. There have been fewer complaints during the last few years than during the first five years I was Director of the Department. Whether that is because it is recognised more as a custom now I cannot tell. There are no means that can lead you to any definite result in trying to arrest it.

The Chairman:—I move from the Chair:—

"That the Report of the Director of the Labour Department for the year ending 1931 be adopted."

The Resolution was carried unanimously.

The Chairman:—The following motion of appreciation proposed by Mr. J. H. Cantlay and seconded by Mr. G. R. Strachan is before the meeting:—

"That this Association records its thanks to the Director of the Labour Department for the very energetic manner in which he has tackled the question of reduction in costs of his Department with such satisfactory results."

The Resolution was carried unanimously.

THE LABOUR DEPARTMENT.

The Chairman.—The Anamallais have a resolution to move and there are two amendments.

The original resolution is:—

“That the Labour Department be under the control of a Committee elected by its subscribers yearly at the Annual General Meeting.”

The West Coast Planters' Association have the following amendment:—

For “Labour Department” read “all Departments.”

The Kanan Devan Planters' Association have the following amendment:—

“That the Articles of Association be so altered as to allow of members of the Executive Committee being limited to ‘All in’ subscribers only.”

Mr. H. J. Walmesley.—As a matter of fact our amendment cropped in by mistake. It was by way of instructions to delegates under certain circumstances. With your permission, I do not wish to bring it forward at this time.

The amendment was, by leave, withdrawn.

Mr. G. R. Strachan.—I have a similar request to make. Since coming to Bangalore, I have discovered many difficulties, one of which is that it would exclude Rubber altogether from the Executive Committee. I would like to withdraw the amendment.

The amendment was, by leave, withdrawn.

The Chairman.—We now go back to the original resolution proposed by the Anamallais.

Mr. Ireland Jones.—I move the following resolution:—

“That the Labour Department be under the control of a Committee elected by its subscribers yearly at the Annual General Meeting.”

For many years the Anamallais Planters Association has advocated a strong Labour Department, and it has in no way changed its opinion. Our Association was the originator of the scheme by which Control Committees were formed to represent the various Districts, and it is ready to admit that these were not a great success. On the other hand it does not agree to the control being in the hands of an Executive Committee who may not individually be subscribers to its main activities, and in any case are elected for their business capabilities in dealing with the external interests of the planting community, rather than for their knowledge of, or interest in, labour problems.

In addition we are of the opinion that the Executive Committee if properly handling external problems will not in ordinary circumstances, if they are working planters, have time to add to their duties the control of what is easily the most important sub-department. The life blood of planting is labour, and the difficulties in South India of getting labour and avoiding incurring bad debts necessitate a very strong and efficient organization in the plains.

I understand that at a meeting in London at which my co-delegate was present the general view was expressed that planters were satisfied with the Labour Department. Is this actually the case? It is impossible to speak for other Districts, but I can say definitely that in the Anamallais a large majority of planters are not satisfied, and considerable numbers are thinking of leaving the Department, though I do not think that this is the fault of the Department itself. I have the greatest admiration for a great deal of its organization but I think that it does not get a fair chance if its control lacks all continuity, and it is always the first to be attacked when the word economy is mentioned. If it is necessary to have a certain establishment to get labour at one time it is necessary at other times, and though percentage cuts may be made in salaries, and economies made in the little luxuries of prosperity, an economically run department should be incapable of other economies if it is to maintain its balanced efficiency. I think the Department makes a mistake in priding itself so much in effecting recoveries of advances, because its whole organization should concentrate on avoiding losses which subsequently have to be recovered. Also if the Whitley Commission's recommendations become law, which is I think more than probable, the policy of the Labour Department will of necessity have to be entirely reversed, and I consider that its status will be enhanced very materially.

I am also of the opinion that in the future, if we are to be faced with the abolition of advances, and weekly or monthly payments to labour, a very considerable strengthening must be effected. We may have to institute depots for purposes of medical inspection of coolies before going to estates, also it may become essential that all coolies going to estates be registered, and that when returning to their villages some attention may be necessary in cases of sickness. However such possibilities can only be explored by those who can afford to give the matter ample time and thought, but in any case whether these possibilities become facts or not, it surely is reasonable that subscribers should control their own department and my Association proposes that the Labour Department be under the control of a Committee elected by its subscribers yearly at the Annual General Meeting. We consider that the methods adopted for election such as calling a meeting of subscribers, and also the constitution of the Committee, whether one member from a District or otherwise, and the number of the committee, be left to the subscribers to decide on. It is their business entirely and not the business of an Association whose members are not all members of the Department in question.

If therefore this proposal meets with the approval that we hope for, we suggest that the Director of the Labour Department

be asked to call a meeting of the representatives of subscribers at a convenient time.

Mr. R. M. Nicolls.—I second the resolution.

Mr. E. W. Fowke.—We would like to hear the Director's views on this subject in committee.

Lieut.-Col. C. H. Brock.—I do not think it is my province to express my views in the matter at all. Of course, I am always only too glad to be in closer co-operation with the Districts and to get help and advice and discuss all the points which have anything to do with the working of the Department. It is not for me to say personally whether a committee is desirable, or some other method by means of which I can keep myself in close touch with the Districts. I want to keep in close touch with the Districts, but whether I should do this through a committee or through some other method of contact, it is for you to say.

There was just one point in Mr. Ireland Jones' speech which I must remark on:—

He said: "I think the Department makes a mistake in priding itself so much in effecting recoveries of advances." Well, that statement is not really correct. During the past few years, I have been steadily endeavouring to persuade estates not to give any advances to labour except through the Labour Department.

It means increasing our work, and it throws a great deal more responsibility on our Agents, but this work has been increasing to a great extent. Where we have given out the advances ourselves, the number of defaults has been a great deal less than when the advances were given either by the estates or through their Suppliers. I have not worked out the figure myself, but I do not think that more than 20 per cent. of the debts recovered are from the advances that have been made individually to coolies by the Labour Department. So that it is not our fault we have the work of recovering money. The reason why there are such a lot of debts is because advances are paid out indiscriminately by the Suppliers and not through the Labour Department. I should like to remove that impression from your minds. My great aim has always been to try to reduce the debt collections, but as long as the claims are made by the estates, I cannot do so. But I do feel satisfied with the proportion of debts which we have been able to recover out of the total of debts claimed by estates.

Mr. G. R. Strachan.—We should like to have the Director's views with regard to having a member of the Labour Department on the Executive Committee.

Lieut.-Col. C. H. Brock.—I do not know that I have got any particular views on the subject. Personally I would like to have a Labour Member on the Executive Committee, but I do not think one member alone is really much good. Either leave it as it is for planters to make suggestions to me direct, and for me to put them up to the Executive Committee; or else you should have more than one labour representative on the Committee.

Mr. P. W. Davis :—It is undesirable at this particular time to spend more money than is necessary. Such a committee would have to meet occasionally and travelling expenses will be incurred. But if other means are considered, the travelling expenses for a special meeting for labour matters might be saved. At the same time, my Association feels that the Labour Department Committee appointed solely by the subscribers will very largely be composed of large Companies and to some extent smaller interests might suffer. The Executive Committee, which consists of subscribers and non-subscribers, are more impartial and more likely to give consideration to smaller interests.

Mr. R. M. Nicolls :—The Executive Committee surely is a committee elected by the subscribers to the Labour Department. Although some members do not directly subscribe, yet they pay their share of the Head Office contribution. I believe that so far as our Association is concerned, they are satisfied with the present working of the Labour Department and we have been instructed to oppose this resolution, partly for that reason and partly because it involves further expense.

Mr. J. H. Cantlay :—This resolution is contrary to what was decided last year. My Association is opposed to a committee being formed of this description. In the first place my Association is very strongly opposed to this, and in the second place there are members who are not direct subscribers to the Labour Department, although they subscribe to it indirectly through the U. P. A. S. I.

Mr. L. Newcome :—My Association also opposes this resolution on the same ground, namely, that it is an unnecessary expenditure.

Mr. G. R. Strachan :—My Association is very strongly opposed to anything in the form of extra expense, and as you know our original amendment was that only actual subscribers to the Labour Department should be eligible for election on the Executive Committee. But owing to the present conditions, practically speaking, there are not so many subscribers to the Labour Department.

Mr. H. B. Macpherson :—My Association is not quite aware of the suggestion underlying this resolution, but they think it is only fair that the subscribers to the Labour Department should have their own control if such is necessary. An occasion may arise when there may not be any Labour Department subscriber on the Executive Committee. Our feeling is that if the subscribers to the Labour Department wish for a committee we consider it to be only fair.

Mr. R. N. W. Jodrell :—It will meet the case if we agree to allow a member of the Labour Department to sit on the Executive Committee, and if we consider that a sub-committee is necessary possibly we can agree to have one consisting of the Labour Department member and one other member who is a subscriber to the Labour Department who can meet when the Executive Committee meets. They can then discuss things and, in this way, I think, the Director will get into contact with the actual subscribers

as far as possible. This gets over the difficulty of the Control Committee. There will be no further expense. This sub-committee can meet only when the Executive Committee meets and there will be no extra expense.

The Chairman:—Another possibility strikes me that whenever there is a General Committee meeting or whenever there is an ordinary meeting, it would be quite easy for the delegates from the Associations who are interested in the Labour Department to have a special meeting. There would be then no extra expense. It will give them control over the working of the Labour Department and will keep their districts very much in touch with what is being done by the Labour Department. Four or five meetings of the General Committee during the year will mean four or five meetings of the Labour Department representatives of all the Associations interested.

Mr. Eric Johnson:—I think it will meet the case better than Mr. Jodrell's suggestion if every member of the committee was a member of the Labour Department and they met regularly. Mr. Jodrell's suggestion does not get over the difficulty of getting ideas from the districts which Colonel Brock and we think necessary.

The Chairman:—Will it meet the case if a resolution is passed asking the Executive Committee to work out ways and means whereby a Rule can be passed that, at the time of all meetings of the Association or of the General Committee, a special Labour Meeting be held when everyone can discuss the affairs of the Labour Department? Will that meet the case? That seems to me to be a very easy way of doing it. The Director of the Labour Department will be kept in touch every time you have a special meeting.

Mr. R. N. W. Jodrell:—Have we agreed that there should be extra General Committee meetings?

The Chairman:—We have not agreed, but it is felt, I think. It is one of the things which the Executive Committee should take up. In any case there are always three or more General Committee meetings in the year.

Sir Fairless Barber:—The principal argument is that no Department can be controlled except through the Executive Committee. It would be a very dangerous thing to have outside men. I think that is quite clear, that the actual control of the Department must be through the Executive Committee only.

The Chairman:—This is the proposed amendment. It does not take the control out of the hands of the Executive Committee. I move from the Chair:—

"That the Executive Committee be requested to work out a scheme, whereby, at the Annual General Meeting of the Association and Meetings of the General Committee, meetings of representatives of Districts subscribing to the Labour Department may be held to consider and discuss the work of the Department and generally act as an Advisory Committee."

The amendment was carried.

Mr. C. L. Greig:—May I have your permission to bring up this resolution?

"That the Executive be asked to draft an amendment to the Labour Department Rules to the effect that from next settlement no cooly debt of more than Rs. 10/- per head can be collected through the Labour Department."

[Permission was granted.]

I am sorry that this resolution was not tabled before. The resolution does not tie us down to anything. It merely asks the Executive Committee to start the ball rolling with a view to the limitation of advances. There have been cases of coolies who have worked for ten and twelve years in the Estate disappearing for one year and coming back again in the subsequent year and then being claimed by the Labour Department for debts which in one case amounted to Rs. 100/-. My Association feels that there must be some limit to it.

Mr. L. Newcome:—My Association is fully in sympathy with this resolution. As a matter of fact the Mysore Planters' Association have a limitation of Rs. 15/- per head. In any case we have to refer it back to our Association.

The Chairman:—It is not asking you to pass anything. It is to ask the Executive Committee to frame a Rule. It will then be circulated to the District Associations before it can possibly be carried. It is simply an expression of opinion that the time has come when we must start reducing advances and, I think, everybody in this room is in agreement with that. It is to ask the Executive Committee to go into the whole question and see if it is possible to frame some Rule applicable to all Districts whereby advances can be restricted. Mr. Greig has put in a figure of Rs. 10. It will not be necessary for the Executive Committee to stick to that. They may suggest Rs. 5 or Rs. 15. We must really start getting some machinery going to restrict advances in South India and when you hear of a case of a cooly in one year having an advance of Rs. 100, it shows to what length advancing is going on in some parts of this Presidency. I do not personally think that it is possible for this meeting to say Rs. 5, Rs. 10 or Rs. 15. It must be left to the Executive Committee to decide.

The Resolution was carried.

TEA SCIENTIFIC DEPARTMENT.

The Chairman:—We have here a resolution which the Executive Committee are putting up. There is also a resolution by the Anamallais delegates and another one by the Kanan Devan delegates. I will ask Mr. Jodrell, on behalf of the Executive Committee, to read their resolution and then ask the Anamallais and the Kanan Devans to move theirs. The whole matter can then be discussed in committee before anything takes place in the open meeting.

Mr. R. N. W. Jodrell.—We propose:—

"That the Scientific Department be continued under the control of the Executive Committee, but the actual administration of the Station to be in the hands of the Senior Scientific

Officer in conjunction with the Sub-Committee as recommended in the Cameron Committee Report, viz., the active and the member in waiting for tea on the Executive Committee, and one other with experience in tea to be nominated by the Chairman of the U. P. A. S. I., but preferably one holding or who has held office on the Executive Committee."

We feel that the existing Scientific Department should be continued. We have already sunk in our Station a sum of Rs. 1,13,000 and we feel that it would be a shame now to let it fall out of use. It would be a very expensive business to start it again if you allow it to close. You know we have made efforts to affiliate with Ceylon which have failed. We feel that, although efforts have failed definitely at the present time, yet there are still hopes of the affiliation question being revived in more prosperous times and if we have a going concern at that time, our chances of affiliation will be much better.

There is one other point. We obtain a grant from the Government for our Scientific Departments. The Madras Government gives us something like Rs. 28,000 which is bound to fall if we close down. I think it meets a very considerable part of our expenditure. It would be a pity to ask the Government to allow us to close down the Station.

The scientific results, I am told, are bound to be a little slow. We should not expect too much in a hurry. I do believe that our Station will be ultimately of considerable benefit to us, even if it is not already so.

I would ask you to vote in favour of continuing our Station.

Mr. Eric Johnson.—The Anamallais have an amendment to close down the Tea Scientific Station and to affiliate with the Tea Research Institute of Ceylon.

Since our discussion in the district on this subject, we have heard that other people have decided that, unless certain alterations are made, they would cease to be subscribers to the Tea Scientific Department. We have also got Rule 6 (b) of the Articles, which lays down that the General Committee of the Association can call for subscriptions for any recognized Department. Whether that allows people to go out or not we cannot really say, but if it allows them to go out, then our resolution is unnecessary.

We consider that there is already enough research work done in Java and Ceylon, and keeping a separate establishment here is splitting up resources which may be combined. A great deal of research work can be done just as well in London as in South India. This means only a study of the problems on the spot. If we continue this Station we will have to maintain a Chemist and a Bacteriologist. It will mean going round the Districts and Estates. We do not want to avoid paying our full share of the expenditure which the whole tea industry is spending on research, but we cannot afford a Scientific Station in South India.

Some people say that Ceylon would accept a bigger contribution if we offer it to them and have no Station of our own. As far as the Government grant is concerned, it seems to us that if we do not consider our Station to be of any use, we should not take the money. We do not know how much out of the Rs. 28,000 goes to Tea.

Sir Fairless Barber:—I would like to support Mr. Johnson. We ought to turn our attention to affiliation rather than embark upon expenses ourselves. I had occasion to say this some years ago and I should like to reiterate it again. I do not see how we can afford a Station with such a small acreage to get any value out of it. I am quite satisfied that our Scientific Department has done its best. Its means are limited. There must be some other way of imparting Scientific knowledge than by research work. I should like to see our Scientific Officer, possibly with two other officers, keeping in touch with all the research work in Ceylon and Java and going round estates continually lecturing and giving advice on matters on the spot. I feel that if he keeps in touch with everything that is going on elsewhere, that it will be of more value to us.

Mr. E. N. Pinks:—Mr. Chairman, my Association's amendment reads as follows:—

"That the U. P. A. S. I. Tea Scientific Department be closed down on a maintenance basis until such time as affiliation can be arranged with the Ceylon Tea Research Institute."

We put up this amendment partly on a misunderstanding which has since been elucidated. We do not understand the point in the Anamallais' resolution. Their intention is to entirely close it down and to do away with it. But in view of what Mr. Johnson has said on behalf of his Association. I would like to associate myself with everything that he has said. We think that we should keep in mind the possibility of affiliation with Ceylon. We can keep the Department on with that in view, but not incur any further expenditure on the Station.

Mr. H. S. Cameron:—I would like to support the resolution. I think it would be a great pity to close down our experimental station. We have spent a great deal of money on it. I regret that the affiliation of Ceylon did not go through. These are hard times now and so they have put it off, but, after some time if the affiliation takes place, it will be advantageous to them as well as to our own Station. But if we close the Station down, it will be a very difficult business to connect Ceylon and South India.

Mr. R. N. W. Jodrell:—Our resolution is to continue the Station through the Executive Committee with the administration in the hands of the Scientific Officer. I agree with all that Sir Fairless Barber has said. That, of course, will be a matter for decision. But we propose that the Station be continued. We have spent a certain amount of money and we get a grant from the Government but we have not yet defined the type of work that should be done there.

Mr. E. W. Fouke:—My Association is very strongly opposed to the closing down of the Tea Scientific Station.

Mr. C. L. Greig:—My Association is strongly opposed to it.

The Chairman.—It is a great pity that the two biggest Associations seem to want to break up the Tea Scientific Department. As to what its future is going to be—whether it should continue research work or incorporate all other people's work or whether it should continue at all—it is for you to decide. I feel convinced that Mr. Cameron was correct when he said that, if we close down our Scientific Department there would be very little chance of affiliation with Ceylon. One of the main points on which they required affiliation was that they would have a sub-station in which work can be carried on in conjunction with their work with mutual benefit to both. It seems to me that it would be a very retrograde step if, after seven or eight years' hard work by your scientific staff, you suddenly ceased everything. My own opinion is that the work done by them has been of very great value to our Industry. If you only consider the question of manuring, you will find that the saving in manuring due to Scientific aid has been enormous. I should like to see the removal of these two amendments—see them withdrawn now. (Applause.) Let delegates go back to their Districts to reconsider the whole question, and see whether some method cannot be evolved, whereby affiliation or some other form of close touch with other Research Stations cannot be arranged, and then to come back and discuss the matter at an Extraordinary General Meeting, which can be easily arranged, or to leave it till next year when more will be known as to the correct state of the Tea market—whether it is improving or not. We can then see whether as the result of the united brains of all of you something less revolutionary cannot be evolved than the suggestions put forward by the Anamallais and the Kanan Devan's Associations. (Applause.)

Mr. G. R. Strachan.—I reiterate what has been said a short time ago that at present we have no power to act. We have had these instructions from our Association. They are not our personal views and we have to act up to our Association's instructions.

Mr. Eric Johnson.—I am exactly in the same position.

The Chairman.—In that case I must put forward the amendments. It again goes to show, what I have often said, how difficult it is for any delegate to deal with any subject when his hands are tied when he comes to the meeting. It seems to me that when a delegate's hands are tied, there is no use in a discussion. At a meeting, after hearing the arguments on both sides, if a delegate says that his hands are tied, whatever can be done?

The amendment proposed by Mr. Pinks, on being put to the vote, was declared to be lost. A poll was demanded with the result that there were 613 votes in favour of and 1,609 against.

The amendment proposed by Mr. Eric Johnson was, by leave, withdrawn.

The original resolution proposed by Mr. Jodrell was carried.

Mr. R. N. W. Jodrell.—I should like to move the next part of the resolution:—

"That the Executive Committee ask the Government of Madras to allow the Director of Agriculture to act on this Committee if he is willing, or failing him, to nominate any other Agricultural Scientist they may choose."

The object of this resolution is obvious. We have once had the Director of Agriculture to visit this Station. He expressed considerable satisfaction at the work that was being done and he thought that it could be fairly extended. We think it very advisable that the Director of Agriculture should act on the Committee if he so desires.

This Resolution was carried unanimously.

RUBBER SCIENTIFIC DEPARTMENT.

Mr. H. J. Walmesley:—Mr. Chairman and Gentlemen, it is with the greatest regret that the Executive Committee have had to decide to give notice to our Rubber Scientist at Mundakayam. I would say first of all that there is no feeling of dissatisfaction whatever with the Rubber Scientific Station. We would very much like to keep it on. We did everything possible to keep it on, but the only thing now is to close it down for lack of funds. We worked out the lowest price on which it could be maintained. If we had about 45,000 acres at 3 annas per acre, we could keep it going. We made sure of the position and we got nearly 19,000 acres, that is less than half the acreage required, to agree to pay at 3 annas. The remaining 26,000 acres were not in a position to pay. Under the circumstances, if we maintained for only 19,000 acres, we would have to pay at the rate of 6 annas per acre. Out of this 19,000 acres, 18,000 acres belonged to one Company and it is not possible to ask that one Company to pay practically the whole cost of the Station. That is all I have to say. Our Station has served us very well in the past. Mr. Ashplant worked very hard and Mr. Taylor very ably carried on the work at the Station. It is a matter of great regret that we have to ask for it to be closed down.

Mr. H. B. Macpherson:—I would like to endorse what Mr. Walmesley has just said.

The meeting was adjourned until 2-30 p.m.

Second Day, Tuesday, 18th August, 1931.

The Meeting re-assembled at 2.30 p.m.

RULES.

The Chairman:—Before we begin the afternoon session, with your permission I will refer back to "Rules" with reference to the resolution relating to the areas actually abandoned which was discussed yesterday and confirmed.

I am afraid I did not realize that I would have to bring it up again to-day, or else I would not have finished with it yesterday. Our Mundakayam delegate has pointed out that as he reads the resolution, it means that no work of any sort can be done on revenue bearing areas. Now that is not exactly what we want. Everyone will realize that you have got to do a certain amount of work on your Rubber in the shape of fighting diseases. Mr. MacPherson wishes to add one word to the resolution which will make the meaning quite clear. I think I am right in saying that the revenue bearing areas should be protected from pests and diseases. I will now ask Mr. MacPherson to state what he wishes to say.

Mr. H. B. MacPherson:—I think the Chairman has explained fully the object of bringing up this resolution. What I suggested being put in was the word "mature" as well as "immature." The resolution will then read as follows:—

"When declaring acreage for any one year, District Associations may reduce their previously declared area on account of areas actually abandoned.

"The word 'abandoned' shall be taken to mean any revenue bearing area from which no crop is harvested and mature and immature areas on which no agricultural operations are conducted during that financial year in both cases."

The Chairman:—Has anybody any objection to that one word being added to the resolution?

Mr. H. P. MacPherson:—What is wanted is to insert the word "mature" before "areas." As a matter of fact it is not really essential now after the assurance that has been given, namely, that the revenue bearing areas should fight all pests and diseases.

The Chairman:—Supposing we divide the second paragraph of the original resolution into two parts?

"The word 'abandoned' shall be taken to mean:

(a) any revenue bearing area from which no crop is harvested and

(b) immature areas on which no agricultural operations are conducted;

during that financial year in both cases."

How does that suit you?

Mr. H. B. MacPherson:—Thank you.

The Chairman:—With the permission of the meeting, I shall make the alteration.

Permission was granted, and the resolution, as amended, was carried.

COFFEE.

The Chairman:—On your behalf I should like to welcome Dr. Leslie Coleman who has so kindly given up his time to come here this afternoon. He is always ready to come and help us whenever we want his assistance. (Applause.)

Before taking up the scientific question, I would ask Mr. Langley to propose a resolution on the question of Nilgiri Coffee. Have I your permission to allow Mr. Langley to do so because it is not on the agenda.

Permission was granted.

Mr. W. K. M. Langley:—I beg to propose the following resolution:—

"That this Association strongly condemns the growing practice of shipping coffee from other Districts under the description of Nilgiri Plantation, thereby directly damaging the reputation of Nilgiri Coffee and indirectly the reputation of all East India Coffee, especially among consumers in Europe.

That this Association takes steps in conjunction with Curers and Exporting Houses to put a stop to this practice."

The resolution speaks for itself. I shall, therefore, only mention a few facts for your information. It is a matter of some gratification that one finds that in spite of the depression in Brazilian coffee there are still some people in this country and many people in Europe who prefer all kinds of East India coffee. They appreciate East India coffee in places where they do not drink Brazilian coffee. During the last few years the Exporting Houses connected with coffee have had to get into touch with the consumers in Central Europe. They have found markets which could very easily be increased in Central Europe for all kinds of East India coffee, but more particularly for Nilgiri coffee. Now I wish to show what value they place on the best qualities of Nilgiri coffee. I am not disparaging the coffee of any other districts in Southern India. Some of the Mysore coffees have their own tremendously high value in the London market. They have an exceptional market and they command their own prices in the same way as Nilgiri coffee does in Central Europe. Well, last year I heard during the beginning

of the season that while the average quality of coffee in a particular estate in Mysore was selling for the purposes of consumption at about £80 a ton, c.i.f. in Amsterdam and Hamburg, certain specified grades of Nilgiri coffee at £125 were readily competed for. In other words there was a difference of £40 a ton, and that is a difference which is bound to arouse the greedy instinct of people who might be indifferent to the voice of conscience. The result of this was noticed by some people concerned in the trade on the coast, but they did not feel that it was their business to call attention to the fact that Nilgiri coffee was being exported from the port of Mangalore. It might be spurious or it might be real Nilgiri coffee, but this particular practice was brought to the notice of every respectable Exporting House by the actual consumers themselves in Central Europe, and I know they would appreciate a strong pronouncement by this Association and the adoption of any means which would put a stop to this practice. They complained to us and to the other Exporters as well that they were finding great difficulty in dealing with these supplies of spurious Nilgiri coffee.

During 1930-1931 one of the exporters from Mangalore exported as Nilgiri coffee 610 cwts. Another exporter exported 1,952 cwts. of coffee and another 488 cwts., all as Nilgiri coffee—thus making a total of 3,050 cwts. of Nilgiri coffee or alleged Nilgiri coffee. Some of it might have been Nilgiri, but I venture to state with some confidence that, at least, 75 per cent could not have been Nilgiri coffee at all. Now I am suggesting nothing against the coffee dealers of the other districts. This does not benefit either Mysore coffee or Coorg coffee, but what this practice actually does is to lower the standard of the East India coffee. The difference in the coffee is detected in Central Europe where people have got discriminating palates. In other words, both East India coffee and Nilgiri coffee, like the clergyman's daughter in Piccadilly Circus, have a reputation to lose. (Laughter.) Is it with that motive that some of the exporters were exporting other coffee from Mangalore Port and passing it off as Nilgiri coffee or is it because some of them were greedy to make money? The coffee that is sent as Nilgiri coffee is not only inferior to Nilgiri coffee, but also to the East India coffee generally. It is a subterfuge for the passing off of other coffee as the Nilgiri coffee. If people were not able to tell the difference between the coffee that was exported from Mangalore and the Nilgiri coffee, then they might get used to it. There is a difference between good wine and bad wine. The same practice was adopted by the people who were dealing in wine. If you did not keep up to the practice of drinking a very good Bordeaux, you would probably come down to the miserable position of drinking whisky and soda! In the same way the discriminating palates in Central Europe, to which I have already referred, want Nilgiri coffee. I do not say that everybody likes Nilgiri coffee—there are some people who like Mysore coffee—but some want Nilgiri coffee and if they do not get it, it is damaging to the whole reputation of East India coffee in Central Europe.

I, therefore, claim that if this resolution is passed by the Meeting, there would be less danger of this sort of coffee getting into Central Europe. I have suggested at the end of the resolution that some means should be adopted to put a stop to this practice. It has been suggested by large Exporting Houses that a certificate should be given either by the United Planters' Association or by some firm of standing. It might be quite possible to be able to work out something of that kind in practice. I think some sort of solution ought to be found which might put a stop to this practice.

I have only one more word to say, and that is with regard to the shipment of what is called "Salem unsized" coffee which passes off as Shevaroy coffee, but does not contain any Shevaroy coffee whatsoever. It is said that 130 tons of this coffee were exported from Mangalore and yet not a single ton came from the Shevaroy. But it is quite a different thing so far as the "Salem unsized" coffee is concerned. The export of this coffee has been going on for a long time and never has there been a real parcel from the Shevaroy. I think this matter can be brought under the same arrangement which I have suggested in connection with the Nilgiri coffee. The export of Nilgiri coffee from Mangalore is a wrong substitution and should be nipped in the bud.

I, therefore, beg to move this resolution and I hope Mr. Greig will kindly second it.

Mr. C. L. Greig :—I second the resolution.

The Chairman :—You have heard the resolution proposed by Mr. Langley and seconded by Mr. Greig. Has anybody anything to say about it?

Mr. E. W. Fowke :—It is difficult for us to suggest anything.

The Chairman :—I think it will have to be worked out by both planters and curers to see what we can do. I think everybody is in agreement that something should be done. I should leave it to the Executive Committee to communicate with the curers on the one side and the planters on the other to see what steps can be taken in the matter. It will take some time.

Mr. L. Newcome :—Might I suggest that an equal precaution should be taken to see that Nilgiri coffee is not sold under the name of Mysore? (Laughter.)

Captain R. H. A. Travers-Drapes :—I would not like to interfere with anything which would prevent this resolution from having due weight. But, at the same time, there is the fact that this practice of shipping "Salem unsized" coffee as Shevaroy coffee is going on and it seems to me that that practice should be stopped.

The Chairman :—As regards the "Salem unsized" coffee, the matter is receiving the attention of the Association now. Our Secretary is in communication with every curer on the West Coast and he

will circulate the result of that to you and to the other Coffee Associations.

Mr. E. H. Stanes:—I would endorse Mr. Langley's proposals. With regard to the Nilgiri coffee, I think something should be done on the lines of Mr. Langley's proposal.

The Chairman:—Has anybody anything more to say? If not, I will put the resolution to the meeting.

The Resolution was carried.

COFFEE DRYING.

The Chairman:—The next resolution is of the Shevaroy Planters' Association which runs as follows:—

"That such sum of money as may be necessary be allotted at the next Annual General Meeting of the U.P.A.S.I. from the accumulated funds of the Coffee Scientific Cess to the Director of Agriculture, Mysore, for the purpose of experimenting with coffee drying apparatus for the artificial drying of coffee on estates."

Captain E. H. A. Travers-Drapes:—The object of bringing this resolution is to save coffee planters from experimenting themselves. There is also this doubt about it that if we dry our own coffee sufficiently before it is sent to the curers, we can always demand that it shall not be dried any more. The existing practice, I understand, is to re-dry the coffee, although the planter may have sent his crop dried to the curer, until it is perfectly dry and ready for shipment. If you have read Dr. Leslie Coleman's Bulletin on his travels in Java, you will find that he emphasises the importance of drying your own coffee.

As regards the saving to be effected from experimenting ourselves, I dare say many of you have wasted a good deal by experimenting with sprayers. I spent Rs. 1,000/- on one set when I could have got three better sets for the same amount. This is the sort of thing we want to be saved from. It is with this object in view that we have brought forward this resolution. I have nothing more to say.

Mr. C. L. Greig:—I second the resolution.

Dr. Leslie Coleman:—I have not very much to say on this question. Captain Travers-Drapes did not communicate with me. I want him to understand distinctly that I had nothing to do with the suggestion for having this resolution brought before this meeting or any meeting, and as a matter of fact it has come to me as a matter of surprise. In my report—one of the reports which I wrote after my return from Java—I did refer to drying. Now I am not an expert on any of these matters and unfortunately when I visited Java where the work was being done, the special Technical Officer who was engaged on this work was on leave and so I had to get my information from the Director of the Station and from certain Manufacturers. My suggestion was made primarily, of course, in connection with the control of *Stephanoderes*. It had become quite clear in Java that if coffee was shipped from any

estate undried, there was a very much greater danger of the transport of living insects than if the coffee were dried. I was assured throughout that where coffee was thoroughly dried, the insects were one hundred per cent. killed and it was really with that object originally that I thought of experimenting. Now the other phase of the question, of course, I cannot speak upon because I am not qualified. It has occurred to me, of course, and it must have occurred to many other planters that, in course of time, if you develop, as you seem to hope to develop, an organisation for the sale of coffee in India and elsewhere, some system of drying will probably become necessary. The particular type of drier which is now being experimented upon in Java seems to be—from what information I could get—efficient and economical in working. Those of you who have read the report to which Captain Travers-Drapes has just referred will remember that I did hope to be able to take up this work without any outside assistance, but, unfortunately, we here have suffered from financial depression just the same as the planters themselves and I find myself obliged, in connection with the coffee experimental work—as in connection with all other experimental works—to “draw in my horns” as it were and to restrict operations to the lines of investigation which we have under weigh at present. Even there, I fear, we will have to go very very slowly. It is certainly very unlikely that we shall be able to take up any work of this kind in the immediate future. I personally would give any assistance in this direction. I am not asking for it. We are not come to you as beggars. We are working for the general benefit of all coffee planters and not only for that of Mysore. I think I have nothing more to say on this point. I understand that the delegates from the Mysore Planters' Association have been instructed to vote against this resolution. Possibly, they did not have all the facts in their possession at the time when this proposition was made. I personally should be very glad, as I said before, to give assistance in this direction as in any other matter. (Applause.)

Mr. L. Newcome.—I rise to say that in this particular matter my Association has given me no discretion. It only shows, as was said this morning, the unwisdom of tying delegates down. I may say that, on principle, my Association is thoroughly in agreement with the idea of a grant for this purpose. It so happened that, at the discussion we had at our meeting on this particular subject, the proposition was brought up that there were other diseases affecting Mysore which required more urgent attention, and it was with that idea alone that we were unfortunately instructed, without any discretion, to vote against this particular proposition.

I regret that the only thing we can do is to refer it back to our Association. Meanwhile, I am afraid, we have no option in the matter.

Mr. R. M. Nicolls.—We were instructed to oppose this but we decided yesterday that we would support it. We were given a free hand.

Mr. R. N. W. Jodrell.—How much money is likely to be involved?

Dr. Leslie Coleman.—About Rs. 7,000 I think.

The Chairman:—Captain Travers-Drapes, would you have any objection if the resolution were slightly altered to allow this being referred back to the Associations, so that Mysore may alter their opinion and the Executive Committee when it finds that there is a unanimous agreement on this question, may carry the matter through?

Captain E.H.A. Travers-Drapes:—I think that would be a good thing.

The Chairman:—Will you redraft the resolution on those lines?

Mr. W.K.M. Langley:—Might I suggest that the Executive Committee, when it deals with this question, should make a reference to the estates, because one of the driers that I have seen is not of very much use?

Dr. Leslie Coleman:—Might I just make one remark? I have not seen that particular drier to which Mr. Langley has just referred. It may be similar to the Rotary Drier. I do not think Mr. Langley has read my report. I have pointed out in that report that the driers which are used in Brazil and in the Western countries in general, have not been found satisfactory at all. In Java they have been much too expensive. It is only these rotary driers that are used in India. That is all the information I got in Java and the Technical Officer pointed out that they were not at all suitable for the Eastern conditions and owing to the high cost in running as well. That, I think, will be the case here. You would not think of experimenting with a well-known rotary drier such as is used in Brazil. There is no question of attempting that at all.

The Chairman:—I do not think your resolution is quite strong enough, Captain Travers-Drapes. Would you be prepared to consider the question of an allotment from the accumulated funds of the U. P. A. S. I. for the purpose of experimenting with artificial drying of coffee to be referred back to the District Associations concerned in this product, and if they unanimously agree on the need for these experiments, the Executive Committee be empowered to spend a sum not exceeding Rs. 7,500 for this purpose?

Captain E. H. A. Travers-Drapes:—Yes, Sir.

The Chairman:—Captain Travers-Drapes and Mr. Greig have drafted a new resolution. Have they your permission to withdraw the former one in favour of it?

Permission was granted.

The Chairman:—I now put the resolution to the meeting. It is proposed by Capt. E. H. A. Travers-Drapes and seconded by Mr. C. L. Greig:—

“That the question of an allotment from the accumulated funds of the U. P. A. S. I. for the purpose of experimenting with artificial drying of coffee be referred back to District Associations concerned in this product, and that in the event

of their unanimous agreement on the need for these experiments, the Executive Committee be empowered to spend a sum not exceeding Rs. 7,500 for this purpose."

The Resolution was carried.

The Chairman:—I will now ask Dr. Leslie Coleman to speak to us on the subject of "Stephanoderes" and other matters.

Dr. LESLIE COLEMAN'S ADDRESS.

Dr. Leslie Coleman:—I have not come here prepared to make a speech. Your Chairman has referred to the fact that I have come here at a piece of personal inconvenience. I would not be prepared to say that. As a matter of fact you have relieved me of an inconvenient duty elsewhere, and I really ought to thank you for sparing me three or four hours from that work.

You are bringing up a resolution, I see, thanking the Imperial Government for its action in having prohibited the importation of raw coffee into India. Now as you are all aware I was sent on deputation by the Mysore Durbar to Java to investigate the conditions there and to see, as far as possible, as to what the prospects were should we be faced with a serious attack of plant disease.

In the first place, may I say that I have nothing whatever to add to the report which I have written and to the letter which appeared in the "Planters' Chronicle" shortly after my return from Java. I said then that certain specimens which, as far as the experts in Java could say, were *Stephanoderes Hampei*, had been sent to Europe for further identification by the chief expert in the world. Unfortunately, although they were sent many months ago, we have had no reply whatever. Reminders have been sent. But we must remember that the gentleman concerned is a Forest Officer and that he takes up this work, I imagine, in his spare time and it is rather unfair for us to expect him to devote his time to a work which does not directly concern him. I had hoped for further information on my return from Java, but in vain. As a matter of fact I became rather seriously ill and I had to hand over all this work in connection with the *Stephanoderes* to Dr. Kunhikannan and, as you have heard, we have suffered a very severe loss in his death. Now I shall have to take up the work myself as no successor has been appointed.

Leaving out of account the question as to whether *Stephanoderes Hampei* exists here or not, I consider that the action by the Government of India is an extremely wise one. I base my remark on certain observations that I made in Java and observations that I made since I wrote my last report. On my return to Mysore I was assured by the Agricultural Officers in that island that we were perfectly safe in connection with any shipments of coffee from Java if they gave us a certificate that those shipments were free from any insects or pests. I was naturally interested in the proposition. Those of you who have read my report are probably aware of the method that is followed in connection with the fumigation of coffee, which was intended for seed purposes, with turpentine. I therefore, naturally wanted to know exactly

how it was done. I took photographs of a very simple apparatus which was being used. But in Java, as in India, all this work has to be left as a matter of course to the native assistants and they are apt to think that a chemical which is in one bottle is just as good as another one for fumigating purposes, and when fumigation is being carried on under such conditions, I do not think that much confidence can be placed in a certificate which is received from there.

Now that is not all. While I was there, I investigated certain other matters besides coffee. There were a certain number of field crops which might be useful to me at Mysore. They offered to send me maize, beans and various other crops with the certificate, of course, that all these had been perfectly fumigated. My Botanist came to me with some packages. When he opened them he found that they were full of live beetles of various sorts. (Laughter.) I satisfied myself that it was a fact. Now all this seed had come with a proper certificate from the Head of a Section whose duty it was to fumigate this material before it was sent out. Considering these two facts, I think you will agree with me that whether *Stephanoderes Hampei* is here or not, the danger of its importation still exists and would continue to exist as long as raw coffee is imported into India.

I do not think I have anything more to say on that question alone and again I repeat that I consider the Government of India extremely wise in the action they have taken. I do not want to refer you to the fact that more than two or three years ago we were assured in this room that it was absolutely impossible to get the Government of India to move in this direction. I think some of you were present at that time and we were assured of what they then proposed to do. At that time I was unconvinced that that was the case. I thought that if we put up a reasonable fight with them and pointed out some specific cases of imported coffee coming into Mysore with live *Stephanoderes Hampei*, they would see the force of our argument. Now, of course, it is an accomplished fact that no more unroasted coffee can come into India.

Now I should like to refer, if I may, to certain questions relating to experiments in the Coffee Experimental Station in Mysore and to the work that is being done there, more especially by your Scientific Officer. You have before you two reports containing the account of Mr. Mayne's work during the past year. I do not think you have had time to go through those reports, but when you do, you will find that Mr. Mayne's time has not been wasted. I would like to correct that impression. I see, Sir, in your opening address, some suggestion—perhaps here again I was too sensitive—that while Mr. Mayne's work was interesting it might not be of practical importance. There is a tendency in the minds of the general public to believe that a scientist is more interested in his scientific subjects as such than in its practical application. Now Mr. Mayne has been working, as you probably know, as part of a team. His work had to be co-ordinated with the work of the other officers in the Station and in the Mysore Agricultural Department. I may say that I was in no doubt about the wish of U.P.A.S.I. and had I had any suspicion at all—I do not think I have any right to have that suspicion even now—that it was

their desire that Mr. Mayne should work there purely as a separate officer for problems which might be brought up by the various planters interested in coffee, I would have been very diffident in proposing to the Mysore Durbar that he might be allowed to work at the Station. I believe we are all working to the same end and, I believe, Mr. Mayne's services can best be utilised by working in co-ordination with the Mysore officers towards the common end. I have been responsible for deciding the problems upon which Mr. Mayne should work, but I can assure you that the problems were selected only after very careful thought. I still believe that the one disease of coffee in South India, which, in general, causes the greatest reduction in crop, is "leaf disease." We have sufficient evidence to show as to what it did in the past. I do not think all coffee planters in India are fully alive to the dangers, but it is a reduction in the crop that it produces. I am fairly convinced that "leaf disease" and the other diseases which follow in its trail are the most important diseases that we have to deal with. In certain districts there are problems of some local importance which perhaps those planters consider to be of more importance. But I have to deal with all of them together. I have to consider the opinion of the majority. I think that is the way I have acted in the past and it was therefore decided that Mr. Mayne should make a fundamental study of the leaf disease and how best to combat it. That work is still progressing and, I think, in my introductory remarks to one of Mr. Mayne's reports which is before you, I have indicated what in my opinion is the value of his work. His work has been valuable in connection with the fixing of definite dates and the times of the year when we can take steps to control this disease and also the methods that he has worked out in ascertaining what are the best means of combating this disease and the diseases associated with it.

I may say, furthermore, that the recent work of Mr. Mayne which is not referred to in either of these reports, leads me to hope that his services will be of still greater importance in connection with the work in future. I refer here to the question of treating coffee for disease resistance. Many times in this hall, I have emphasised the fact that the methods which we are now recommending for the control of the "leaf disease" are methods which are imperfect and naturally very expensive. I do not think they are so expensive as not to be profitable. You, Sir, referred to the fact that you would like something better. Certain investigations of Mr. Mayne will allow us to judge in the nursery whether a particular strain of coffee should be planted and tested for quality and yield as to whether it is a disease resistant before we plant it in the field at all. We shall be fairly well assured not as to what that coffee will do in quality or yield but that it will be a disease resistant. We shall have to do an immense amount of selection work. I estimate three or four years if we do that alone. I do not know whether we shall be able to do what Mr. Ashplant hoped to do with regard to rubber. I have seen no methods in connection with the ordinary crop which produce seeds which have been successful, and as you know my recent visit to Java has thrown some doubt even on Mr. Ashplant's work. For us to say in the nursery that these plants are disease resistant, will take, I estimate, at least four years, and that must be a matter of great importance.

There is another direction in which we are working at the Station which will be of general interest to coffee planters. I refer to the work of grafting. Unfortunately, the report of the Station itself has not yet been printed, but I may tell you that we have in the Station an experienced grafter, who is grafting in the field and in the nurseries throughout every month in the year and we have been getting extraordinary interesting results as regards the months in which successful grafting can be done. Much against my expectation our greatest success has been in the field, and that is against the experiments in Java I may say. We have found, especially in connection with areas where Robusta is being planted or in areas where Arabica is not able to grow, that where young Robusta plants were put in and then the top grafted with a scion, there we had a high yielding Arabica tree. Now that happens to be a very great possibility. It saves a lot of time. All that you have got to do is to graft in the field and we hope that a plant from a high yielding Arabica will replace the older Arabica in areas which have gone out. With regard to the feasibility of planters carrying out similar work, I feel convinced that any ordinary maistry or even any ordinary cooly could be taught within two weeks to do this work satisfactorily, and I have in mind a proposal to carry on almost immediately after the monsoon regular grafting courses for maistries and coolies who should be sent in to learn the method. The time for these courses will be published later in the "Planters' Chronicle" and notice will be given to the various Associations and planters and I can assure you—no matter whether you are from the Anamallais or the Shevaroyes or the Nilgiris—that we shall work for you at the Station just as if you were true blooded Mysoreans. I wish to assure you here again, as I have done in the past, that as long as I am in charge of this work, I propose to make no distinction whatever as regards the Coffee Industry. The Coffee Industry at least should be a united Industry. As we have heard from Mr. Langley there is a bright future apparently for the Coffee Industry and I am very glad indeed to have had my views so amply justified by one who knows very much more about this than I possibly can know, and I personally look forward to the future of the Coffee Industry with certain amount of confidence.

Now there is one other point which I should like to touch upon and that is the possibility of using our Experimental Station in Mysore as an organisation for doing a little practical propaganda work. Now I can see no reason for there being any division between the Indian and the European coffee planters of South India. I believe their interests are absolutely identical. In other words of life the Indian and the European merchants may not pull together. Their desires and opinions may not be identical, but I can see no reason in the world as to why the Indian and European planters in South India should not have identically the same purposes and aims with regard to the development of their industry. As you know, we have on the Advisory Board of our Station eminent Indian and European planters, and I may say that it has been a matter of very great gratification to me to find that, at the meetings that we have held, there was always a unanimous opinion—even when that opinion was opposed to my own—both between Indians and Europeans as regards the policy of this Station and what should be done individually in a particular case.

After all that is a matter of very great gratification indeed. Now I propose—having lived in this country for so many years, and having associated myself definitely with Indian coffee—shortly after the monsoon, to have a large Field Day on the Station and to invite all the Indian and European coffee planters of South India to come there, to meet together and to see exactly what is being done. I cannot help but feel that if they would respond in large numbers and make the gathering of planters connected or concerned with the industry an annual one, it might do a great deal to remove all the differences, imaginary or real. There are, I believe, misunderstandings which may have developed during the many years during which Indian and European coffee planters have been working side by side in Mysore and in other parts of South India. I trust you, Gentlemen, who come from outside Mysore, will be able to come when we announce the date and bring as many of your friends as possible. It will mean some expense, which is a matter for consideration at present, but I can assure you that your money will not be wasted.

I thank you, Sir, for your references to me, and more especially, your reference to my late colleague, Dr. Kunhikannan who has so recently passed away and whose loss we of the Agricultural Department feel most keenly.

The Chairman:—Gentlemen, on your behalf, I would propose a vote of thanks to Dr. Leslie Coleman for his most interesting address. He always comes here with something very interesting to tell us and we are always very glad to see him. I know that he has the absolute interest of all the coffee planters at heart and everything that he can do will be done for the Scientific Department. (Loud Applause.)

Mr. E. W. Fowke:—I beg to move:—

“That this Association thanks the Imperial Government for its action in having prohibited the importation of raw coffee from places outside India.”

We have got to thank Dr. Leslie Coleman that raw coffee is being prohibited from coming into India.

Mr. A. E. J. Nicolls:—I second the resolution.

Mr. W. K. M. Langley:—I think a small addition should be made to the resolution. The resolution as it stands might be misconstrued, in such a way as to make it appear as if the Government, by passing the measure, had enabled us to get high prices for our coffee. In 1929 when a resolution on the same subject was moved by the Coorg Association, they could not get a seconder at the time and I ventured to second the resolution, which was eventually carried unanimously by the assistance of Dr. Leslie Coleman. We want to emphasise that we did not want with any selfish interest to prohibit the importation of raw coffee, but we were afraid of the danger of *Stephanoderes Hampei*.

I would, therefore, move that the following words be added at the end of the resolution:—

“thereby greatly lessening the danger to the existence of the industry to *Stephanoderes* and other pests.”

The Chairman:—Will that commend itself to Mr. Fowke?

Mr. E. W. Fowke:—Yes, Sir. I would like those words to be added.

The Chairman:—While the resolution is being amended, we will pass on to the next item. During the past year Mr. E. H. Young resigned his position as a member of the Government of Mysore Advisory Committee and we would like to nominate some one from this meeting to take his place. It has been suggested that it would be an excellent thing if the active member for coffee on the Executive Committee filled the vacancy on this Board. He would be a go-between between the Coffee Industry and the Executive Committee. It is his job to keep the coffee planters informed of what is happening. It seems to me that it would be a good thing if he were to go on that Board and represent us. Dr. Leslie Coleman thinks that that would be an excellent thing, and if it meets with everybody's approval, I should like to suggest it. I propose the following resolution from the Chair:—

"That this Association records with regret the resignation of Mr. E. H. Young from the Government of Mysore Advisory Committee for the Mysore Government Coffee Experimental Station and thanks him for the work he has done on their behalf and nominates the active member for coffee on the Executive Committee to fill the vacancy."

Dr. Leslie Coleman:—I think I may say that it is my duty to pay a tribute to the work of Mr. Young. Mr. Young has been for two years now your representative on this Advisory Committee. I have always looked upon him as amongst the most valued members of that Committee. He has not spared himself in any way, but has attended practically all the meetings—many times at much personal inconvenience—and I wish to express my own appreciation of the most excellent and painstaking work that Mr. Young has done in connection with this Station since he has been a member of the Advisory Committee.

The Resolution was carried.

The Chairman:—We now go back to the other resolution which has been slightly altered. It is proposed by Mr. E. W. Fowke and seconded by Mr. A. E. J. Nicolls:—

"That this Association thanks the Imperial Government for its action in having prohibited the importation of raw coffee from places outside India, thereby greatly lessening the danger to the existence of the industry to *Stephanoderes* and other pests."

The Resolution was carried.

ACCOUNTS.

The Chairman:—You have all the accounts before you and you have also had a subsidiary balance sheet which was sent out just before you came to this meeting, which, I think, explains all the different items in a way which everybody can understand. Do you want to know anything further?

Mr. G. R. Strachan:—There is just one item in the balance sheet to which I should like to refer. Under "investments" the interest accrued is given as Rs. 1,541; the investment being Rs. 2,05,967. The amount seems to be very, very small, I hope the Secretary will explain the position.

The Secretary:—The amount you refer to in the balance sheet is only the interest accrued from the 31st of December to the date of closing the accounts. If you will turn to the income and expenditure, you will see that the total interest, which includes this also, was Rs. 11,388-14-5.

The Chairman:—The following resolution has been proposed by Mr. L. Newcome and seconded by Capt. E. H. A. Travers. Drapes:—

"That the Coffee Scientific Fund with accumulated interest be shown in the accounts as a separate item and not be included in the General Reserve."

Mr. L. Newcome:—We think that the Coffee Scientific Fund with accumulated interest should be shown as a separate item and not included in the General Reserve. Owing to circumstances the General Reserve has to be drawn upon. Now is the time to draw upon our Coffee Reserve. Both these funds are now one fund.

Now there is another thing about the Reserve Fund. It is constantly being drawn upon and then money is put back again. If the Coffee Scientific Fund is kept as a separate item, we will know exactly for what purpose the money has been drawn. The Sports Fund was drawn and put in a place by itself. The Benevolent Fund has been drawn out and put in a place by itself and now the Provident Fund has also been drawn out and put separately. The Coffee Scientific Fund, properly speaking, is not a part of the General Reserve at all. It is for a specific purpose, namely, the furtherance of coffee scientific work. I rather wonder how the Chartered Accountants passed it in that form. We were talking this morning that it was important for every member of the District Associations to take a greater part in gingering themselves up. Now with regard to the Coffee Scientific Fund, no member has any idea as to how much money there is in the Fund to draw upon. It seems to me that it is very necessary that these accounts should be kept and shown separately. When the money is drawn it must be known to the Executive Committee and then any member could write up and ask as to what state the Fund was in. Another practical bearing on this question is that, I think partly owing to the ignorance of the state of this Fund, last year a resolution was passed exempting all coffee planters from paying two annas cess, that means that that Fund is being depleted to the tune of Rs. 11,000 every year. At the same time the Mysore planters are being charged at the rate of two annas an acre. We are not complaining about that, but the fact of the matter is that the Mysore planters are carrying the burden of the day. We are proud of it; but we have got to a state now when the baby needs more nourishment. Now I need not say anything more on the scientific work after Dr. Leslie Coleman's speech. But that is not the one scientific farm, it is one of them. We could not afford even if we wished to run a

parallel farm. We are for all that. There is one other thing. The different Governments actually subscribe for a certain portion of the expenses for coffee scientific work. In these days of depression it is rather hard to get the grants. Questions are asked in the Council. It is said that the Fund is being used to relieve every coffee planter by two annas except the Mysore coffee planter. All these matters arise from the very simple fact that this account is not shown separately in the accounts.

The Chairman :—There are one or two misconceptions. The Benevolent Fund never belonged to the U.P.A.S.I. It is entirely a separate show. This fund is incorporated separately and therefore it has nothing to do with the U.P.A.S.I. or the Accounts. The Provident Fund does not belong to the U.P.A.S.I. It is partly subscribed for by the members of the U.P.A.S.I. It is entirely a separate fund and therefore it cannot be included. For many years there has been a constant annual squabble over this question of accumulated funds. Year by year they have been shown separately and every single member has had the chance of seeing them, but last year I thought that at last the corpse had been buried. There were meetings and counter-meetings in every part of Bangalore City, in every hotel, on the floor of this House and everywhere else. I thought that complete unanimity had been arrived at when Mr. Walmesley proposed the resolution which was passed, as far as I know, unanimously. The substance of it was that after crediting the scientific cess for that year with Rs. 27,000, the surplus balances of the Departments should be carried forward to the credit of the Scientific Departments, but that the whole of the accumulated fund—whatever their names happen to be—would belong to this Association and would become the accumulated fund of this Association and not that of Tea or Coffee or anything like that. From that date all surpluses should belong to the Departments which subscribe. The result of that was that Rs 27,000 was carried forward to the various Scientific Departments who subscribed the money and the annual assessment is based on the money that will be required, after taking into consideration the amount standing to the credit of that Department. In view of the fact that there was a considerable sum standing to the credit of the Coffee Scientific Station, this year no assessment was asked for, because it was felt that the coffee planters are in a very bad state. There was money available and therefore further funds were not required for the moment. But if we are going back to start again by repeating arguments which have almost since the re-organisation of the U.P.A.S.I. gone on year after year at Bangalore and in the Districts, then, I think, that it would be a very retrograde step.

Mr. H. J. Walmesley :—Mr. Chairman, you have so ably expressed my sentiments that it is not necessary for me to add anything more. I think we are all satisfied and I think we are all united and, as you said just now, the matter has been finally settled. I think I am right in saying that both the gentlemen from Mysore were in favour of that resolution last year.

Capt. E. H. A. Travers-Drapes :—I second the resolution. I have nothing further to add to what Mr. Newcome has said, except that I think it is quite possible that we are labouring under

a misapprehension. If the intention is to have a separate account of all the money that is to the credit of the coffee scientific fund, then, I think, our wishes are met. What we want is that the amount to the credit of coffee should be kept separately, though it may be put in the accumulated fund.

Mr. L. Newcome:—I do not wish to detain the meeting much longer, but I cannot say that our Association will be quite satisfied with what has been said. As regards the argument that there was sufficient money to carry on the scientific work, that was possibly because the Mysore planters are paying two annas an acre and the Mysore Government is paying an equal amount. The question is whether the interest on that sum is credited to that fund or whether the interest on that sum goes to the General Reserve? I consider that the interest should go for coffee scientific purposes and nothing else.

The Chairman:—Rs. 27,000 was the starting balance under the new scheme. In future everything will be credited to coffee. Previous to that everything was taken into the General Fund of the U.P.S.A.I., no matter who subscribed. After this resolution was passed last year, we started crediting the Departments with the amount of money subscribed to that Department.

Mr. L. Newcome:—This resolution proposes to take out the total amount which, I believe, is nearly Rs. 70,000 which has been subscribed for scientific purposes in the past.

The Chairman:—You propose to go back to the old fight. This will create more bitterness in the Association. The money which you are talking about is not entirely scientific. That money was received from all coffee associations, in subscriptions and all Departmental Cesses.

Mr. J. H. Cantlay:—I feel that it is an awful mistake that we should not be united in this matter. I wish we had time to discuss the matter more fully. Mr. Newcome is labouring under a wrong impression. The money is there. It is in the accumulated fund and if coffee calls for it—so long as there is any left—they will get it. Exactly the same is the case with Tea and Rubber. No other product can snatch it. What is the difference whether it is shown in the accumulated fund or in the General Reserve or elsewhere as long as it is there.

Mr. L. Newcome:—In view of what you have said, with the permission of the meeting and with the permission of my seconder, I beg leave to withdraw the resolution. (Applause.)

The Chairman:—Mr. Newcome. I thank you very much and I hope you will come to the office after this meeting is over. If you will go very thoroughly into the whole position of our accounts and of our funds, it will be a very nice thing. For your satisfaction the Secretary will be only too pleased, as long as you like, to show you exactly what has been done, so you can go back to your Association with a thorough knowledge of how things do stand.

The Resolution was, by leave, withdrawn.

BUDGET.

The Chairman:—On behalf of the Executive Committee, I must ask you for an extra grant under the heading of "Budget" to cover the salary of our Secretary and Director. At the time the Budget was passed by the General Committee, it was thought probable that when he succeeded Mr. Waddington he might also succeed to the post of Secretary to the Chamber of Commerce. But that was found impossible and the result was that we asked him to come down to Madras both as Secretary and as Director of the Labour Department on far less pay than he was already drawing. For some months we thought we would be able to save money in rent due to giving up Mr. Waddington's bungalow, but I regret to say we shall not save as much as we hoped. The Executive Committee, after careful consideration, suggested that the joint pay of the Secretary and the Director should be Rs. 1,700 a month gross, from which at present ten per cent is deducted, which means Rs. 1,530. This means that I must ask you to give us an extra budget grant of Rs. 2,526 to cover the pay of Colonel Brock. I propose from the chair:—

"That the Budget be increased by a sum of Rs. 2,526 under the heading of Secretary's and Director's pay."

The Resolution was carried unanimously.

The meeting was then adjourned for the day.

Third Day, Wednesday, 19th August 1931.

The Meeting re-assembled at 10 a.m.

TEA PROPAGANDA IN SOUTH INDIA.

The Chairman:—Before we start the meeting, I should like to introduce you to Mr. Christie, the Tea Cess Commissioner, who has come down from Calcutta to address the meeting this morning. I should also like to introduce you to Mr. Potter and Mr. Orton who are working for the Tea Cess Commissioner in South India.

Mr. Christie will address you now and, I think, it will be better if you hear him first before moving any resolutions, because it might alter the trend of your views.

Mr. E. W. Christie:—It is a great privilege to have the opportunity of being present at your meeting to-day, and as I know it will be of interest to you to hear what is being done by the Tea Cess Committee for tea in India. I shall briefly sketch the work in general and conclude by describing our activities more in detail where they apply to Southern India.

The Tea Cess Committee's present work can be grouped under the following headings:—

- (1) Villages and Hats or Shandies.
- (2) Railways.
- (3) Bus Routes.
- (4) Bulking and packing tea for propaganda work in the above spheres.
- (5) Bad and Imitation Teas.

Villages and Hats or Shandies.—During the first four months of the present financial year, bazaar work which had hitherto been confined to large towns on Railways was extended to smaller towns, villages, shandies, jutrass, etc., off the line of rail. Our activities have now been completely transferred from towns on railways to the interior and propaganda is being vigorously pushed in the rural areas. As a means of propaganda, arrangements have recently been made to purchase good common sweet leaf teas in Calcutta and bulk and repack them into 20 lb. chests; this tea is being sent to up-country centres in the U.P., and the Punjab for the present, where the new village propaganda is in progress, and sold at eight annas a pound, delivered to village tea dealers and stockers. This low priced tea placed through our staff in places where tea is unknown or little known constitutes a powerful agent in our propaganda work. Although this new work has only recently been started, I, from personal observation, am convinced that it is being conducted in the best way possible, and there are indications that it will continue to progress. Hitherto transport difficulties have handicapped work to a

great extent, but with the transport facilities now arranged, progress will be much speedier and will solve the question of the distribution of the tea already mentioned. As far as South India is concerned this work is at present being conducted in the following districts:—

Kolar	Tumkur	Hassan
Bangalore	Kadur	Salem

and 55 towns with populations averaging 1,000 to 5,000 are being worked. These towns are the framework of an intensive propaganda which will be conducted in all directions radiating from the town as the centre into the neighbouring villages, where it is hoped we will reach the masses whom we are out to educate in the tea drinking habit. Shandies, juttas and other gatherings will be included in our programme and in this manner new markets will be opened and developed. It is encouraging to record that in spite of the present unfavourable economic conditions my parties have introduced 6,300 lbs. of good leaf tea in the last two months into areas where the habit of tea drinking was practically unknown, thereby commencing a new market for the commodity. These areas will be revisited a few weeks hence when I hope that this importation will have been consumed and that repeat orders will follow.

Railways.—The supervision by my staff of tea stall arrangements for lower class passengers travelling by the following railways still continues, but on a smaller scale than heretofore:—Assam-Bengal, East Indian, Bengal and North Western, North Western, Great Indian Peninsula, Bengal-Nagpur, Rohilkand and Kumaon, Nizam's State, Bombay, Baroda and Central India. On 30th of June last, as our work on the Madras and Southern Mahratta Railway was discontinued, the staff employed there was transferred to the Bus Route Section, which I will speak of next.

Bus Routes.—As already stated, the Bus Routes Section has been started and is operating on the routes between Bangalore and Trichinopoly and all branches thereto, concentrating for the present on the routes throughout the Salem District, and the staff previously employed on the M. & S. M. Railway, are now engaged in this work, which consists of inducing contractors to put up liquid tea stalls at bus stops, cross roads and other convenient places for the benefit of the bus travelling public. In addition to this the staff will take every opportunity of holding demonstrations to show the public how tea should be prepared and how to discriminate between tea which is good and tea which is not.

Investigations as to whether there is scope for our work on the bus routes on the roads encircling Nagpur are in course of being carried out, and from reports received so far the routes selected appear to be ideal, and give good scope for our propaganda work not only where tea refreshment stalls are concerned but in the villages also where good tea is unknown or little known and where our demonstration work will be most beneficial. To facilitate this work on bus routes the Executive Committee have authorised the purchase of motor transport, by means of which it will be possible to get over the ground in much less time and also to carry the tea for distribution in these areas.

Bulking and Packing tea for propaganda purposes.—I referred earlier in this report to an arrangement we had in Calcutta for bulking and packing tea into 20 lb. chests for propaganda work. This tea is supplied by the Managing Agency Houses at prices to the equivalent of auction prices, so that we are able to supply a cheap and good article to village stockers packed in a size which does not call for a big initial outlay on their part. If tea of a B.P.S. grade was procurable landed at Bangalore at a price in the vicinity of $4\frac{1}{2}$ annas a pound, it would enable me to start a similar arrangement here for the distribution of South Indian Teas in 20 lb. chests for our propaganda work. I commend this suggestion to those who can help us in this respect and if I have an assurance that suitable tea will be offered to us at the price mentioned, I will make arrangements to commence this work before I return to Calcutta.

Measures to prevent the sale of inferior quality and imitation tea.—I would here outline for your information a brief history of the work of checking the sale of bad and imitation tea since the application of the Madras Prevention of Adulteration Act 1918 was put in force in 1929. Although the Act applies to the whole of the Presidency, before it can be put into force it must be extended to towns and local areas by the Local Government. During the period ending 31st March 1930, only five samples of tea were sent from certain of the towns where the Act applies, and all were found to be pure tea. In the half-year ending 30th September 1930, tea samples were sent to the Public Analyst for analyses from six towns and some 7 samples from one of these towns, Trichinopoly, were found to be adulterated. It was towards the end of this period that our Bad Tea work was commenced in South India and previous to this samples had been taken indiscriminately by Health Officers and Food Inspectors. We have endeavoured to assist those officers first by detecting spurious teas and then bringing them to the notice of the Health Officer or his assistants. This was first done in Trichinopoly, with the result as already mentioned, that 7 dealers were detected selling bad tea, 5 were fined, one Rs. 20, another Rs. 15, and three Rs. 10 each; the remaining two were cautioned and the stocks of bad tea were destroyed by order of the Court. The particulars which I have just mentioned are published in the Public Analyst's Reports by the Madras Government Press. I am glad to be able to report that since your last annual meeting considerable progress has been made in the detection of the manufacture and the prevention of the sale of spurious teas. The Madras Prevention of Adulteration Act which has been extended to 17 towns in the Presidency has been put into active operation in 14 of these towns, where the Health Officers have accepted our co-operation in the detection of bad teas. 76 cases have been detected in the period and the majority of these have been prosecuted and fined. The three towns where the Act has not been put into force are Mettupalaiyam, Madura and Guntur. At Mettupalaiyam the delay is due to the necessary powers not having been delegated to the Sanitary Inspector. This, however, has recently been done and the Act will be put into force immediately. At Madura, powers under the Act have been delegated to the Health Officer who is taking action in regard to all foodstuffs except tea. My Inspector has twice called upon this Health Officer and offered to point out shops (and there are many) where spurious teas are being sold.

but the Health Officer refused to take samples and submit these to the Public Analyst for analysis. At Guntur, the Municipal Chairman has not yet delegated his powers to the Health Officer, though it is now over two years since the Act was extended to this town. My Superintendent has interviewed this Chairman, and urged him to delegate powers, but he has not done so. The reason he gave for not delegating powers was that he does not wish the shopkeepers to be harassed.

The Act authorizes stocks of suspected spurious teas being seized or sealed until the report of the Public Analyst is received, and when such stocks have been certified "adulterated" the Magistrate may order their destruction. This action has only been taken at Trichinopoly and Kumbakonam. In other towns the suspected teas have neither been seized nor sealed and the dealers have been allowed to unload their stocks on to the public. This very unsatisfactory state of affairs might be represented to the Government as it is most important that these stocks should be destroyed. It is surely the object of the Act to prevent this adulterated stuff getting on the market. My staff engaged in this work have no powers to take and submit samples to the Public Analyst and can only bring suspected cases of adulteration to the notice of the Health Officers, who may or may not take action. This is a serious handicap, but if the Health Department of Government would request all Health Officers to allow the Tea Cess Staff to co-operate with them in the matter of selecting samples of imitation and adulterated teas, I feel that our efforts would prove much more productive of results. The Madras Government has recently circularized all District Boards urging them to apply for the extension of the Act to their areas and it is hoped a number will do so. During the past three months my staff have detected much bad tea in towns and villages, other than those in which the Act applies and the attention of the District and Municipal authorities is being drawn to this, and they are being urged to have the Act extended to their areas. Virudhunagar is the chief centre of the imitation tea trade. Large quantities of imitation tea are manufactured and supplied to dishonest dealers throughout South India and the Bombay Presidency where it is used as an adulterant. Until quite recently this imitation tea was railed and shipped as "tea waste" but my latest information is that they are now railing and shipping this as black gram husk. So far none of the manufacturers of imitation teas have been prosecuted. By declaring the article to be what it really is they evade the Act.

In the Travancore State, the Prevention of Adulteration Act has been passed by the Legislative Council and has received the assent of H. H. The Maharani Regent. Rules are now being framed. My staff have already visited certain towns and have information regarding dealers in bad teas which they will lay before the Health Officers as soon as the Act can be put into force.

In the Cochin State, there is a big business in adulterated teas going on. My staff have visited Trichur, Ernakulam and Cochin and have found many dealers with large stocks of adulterated teas. It is most urgent that the Prevention of Adulteration Act be introduced in this State and I recommend that the Legislative Council should be urged to do this.

I understand the Mysore State Government are now considering the extension of the Prevention of Adulteration Act. This is a matter which deserves the support of your representative on the Council.

I daresay you will have noticed that in the revised copy of this Act, while milk, cream, butter, cheese and ghee are specially defined, no mention is made of tea. There is no question in my mind of the Act not applying to tea but when dealing with District and Municipal authorities it would have been desirable if tea had been specially defined as in the case of the above mentioned commodities. An amendment to the Act defining tea has been passed and is quoted in the Public Analyst's Report to Government for the period ending 31st March 1930. I suggest that this should have been embodied in the revised copy of the Act.

The Chairman:—You have all heard Mr. Christie's address. Do you want to ask any questions?

Mr. E. W. Fowke:—I should like to know if the tea that is supplied by the agents in Calcutta for propaganda work has been brought down to South India?

Mr. Christie:—It has not been brought down to South India yet. I thought it would be possible to make some arrangements here. We have only had one bulk so far. The average price is Re. 0-4-10 per pound. There was Cachar tea and Assam tea at various prices, but the average worked out at 0-4-10 per pound. That was about six or seven weeks ago and the market has gone lower since for like teas.

Mr. E. W. Fowke:—Are you going to bring that tea down from Calcutta for propaganda purposes in South India?

Mr. E. W. Christie:—No; I would like to have consignments from here whereby we could also get tea at the same price and we could pack it up in 20 lb. chests. It is a very attractive looking box and serves the purpose of propaganda work, and I propose to sell the tea at eight annas a pound, the same as we are doing in the North.

Mr. R. N. W. Jodrell:—Do I understand Mr. Christie to say that the tea will have to be delivered at Bangalore at 0-4-6 per pound?

Mr. E. W. Christie:—To be delivered at Bangalore. I would like that if it is possible.

Mr. R. N. W. Jodrell:—Mr. Christie referred to the absence of the delegation of powers in certain areas to control the sale of adulterated tea. I think we should frame a resolution to the Government on the subject. I would like Mr. Christie to assist us in framing this resolution. He said that no action had been taken as regards adulterated tea in Madura. Is it not possible for us to address the Government on the subject?

The Chairman:—Mr. Jodrell has a resolution which covers the ground both for tea and coffee. I would ask him to move it.

Mr. R. N. W. Jodrell:—I would like to propose:—

“That the Minister in charge of Local Self-Government be approached with the request that the Prevention of Food

Adulteration Act 1918, as amended in 1927, be made applicable to the whole Presidency and that tea and coffee be included in the schedule of foods coming within the Act; and further that the attention of the Minister concerned be drawn to the refusal of the authorities at Madura and to take such further action as is necessary to enforce this Act. It is further requested that in all cases of suspected adulterated tea and coffee, stocks should be sealed up pending the report of the Public Analyst and in the event of the report proving the articles to be adulterated, all stocks should be destroyed."

We have heard Mr. Christie's speech and we understand that there have been frequent breaches of this Act. I understand that some authorities flatly refused to carry out the powers that are delegated to them.

Mr. J. H. Cantlay:—I should like to second the resolution.

The Resolution was carried unanimously.

The Chairman:—There is just one other point and that is the question of asking the Cochin Government to introduce a similar Act to that which is in force in Madras. Travancore has done so, and you have heard from the Tea Cess Commissioner that a very large amount of adulterated tea is being sold in Cochin. I believe we have a representative on the Cochin Legislative Council and I think that if somebody will propose a resolution asking the Government of Cochin to introduce the Act on the lines of the Madras Adulteration Food Act, it will be a good thing. While we are waiting for the resolution to be drawn up, we can go on with the two resolutions that have been tabled on the Tea propaganda work in India, one by the Anamallais Association and the other by the Central Travancore Association. The Anamallais Association's resolution runs as follows:—

"That a Sub-Committee be formed to investigate the possibility of co-operating in developing the local tea market, together with the Indian Tea Cess Committee."

Mr. Eric Johnson:—In the light of what we have heard, we would like to withdraw the resolution.

The Resolution was, by leave, withdrawn.

Mr. J. H. Cantlay:—On behalf of my association I now move the following resolution:—

"That the United Planters' Association of Southern India approach the Indian Tea Association, with a view to their seeing that propaganda in India be not hampered, in any way, for lack of funds."

As you will remember I spoke, last year, with regard to the need for increasing the sale of tea in India by the opening up of new markets, and the expansion of existing ones, in order to meet the over production of tea. The menace last year has now become a very grave and serious reality. Unless drastic steps are taken immediately to dispose of the surplus tea stocks which have reached the danger mark, those estates producing teas at a medium or low elevation, which are realizing considerably less than the cost of production, will have to close down, while those, more favourably situated topographically, may find it difficult to make both ends meet. There is no doubt that, from every point of view, in India

lies our salvation. Present day methods, if success is to be assured, should be adopted here in the shape of an intensive advertising campaign in all the leading papers in conjunction with circulars and posters. It is common knowledge that advertising pays and pays handsomely, but, no half measures are of the slightest use. At the moment, when Congress are attacking the liquor problem by means of picketing and circulars and posters, the time is surely propitious for the advertising of tea by similar means (picketing, of course excepted) which, as in the case of liquor, are so evident in various villages throughout the country. If all the possible ways and means of increasing tea sales are exploited, the question of finance becomes a matter of extreme urgency; and the want of sufficient funds, to deal with this, should be avoided at all costs.

The I.T.C.C. executive for new propaganda work in outlying towns, large villages and hats recommended the purchase of three touring cars and twelve lorries at a cost of Rs. 46,000 but, owing to lack of funds, were only able to purchase two cars and four lorries which are for use in the United Provinces and South India. This is only one instance where efficiency has been hampered by lack of funds and, unless we can be sure that this work goes forward unhindered in this respect, then its continuity, which is of such vital importance to the tea industry, cannot be maintained. It is quite unnecessary to detain you longer. I feel sure that this is a question which will have your unstinted support.

The Chairman.—Mr. Christie has got something to say on the subject of the purchase of lorries and other matters connected with this resolution.

Mr. E. W. Christie.—At the Annual Meeting of the Indian Tea Cess Committee held in Calcutta on the 24th of March, an allotment for India of Rs. 7½ lakhs was passed, subject to 1½ lakhs being ear-marked for the Central Packing Factory which had been talked about just before that meeting. There were several difficulties in the way of establishing this Central Packing Factory and, I believe, it is still being discussed. But as this money was lying ear-marked, I started the bulking and packing arrangements, claimed the Rs. 1½ lakhs and got it. So with that money I was able to buy altogether fifteen motor lorries or omnibuses and four touring cars. So that we are not so badly off now as it would appear from Mr. Cantlay's remarks.

Mr. C. L. Greig.—I should like to ask Mr. Cantlay as to why he excepted picketing from the propaganda work? (Laughter).

Mr. J. H. Cantlay.—I think that is fairly obvious. Picketing is so often decried. It is not the European or Anglo-Indian custom to do any picketing in the interest of propaganda work.

Mr. C. L. Greig.—Do I understand that picketing has done no good?

The Chairman.—The resolution proposed by Mr. J. H. Cantlay and seconded by Mr. Ireland Jones is before the meeting.

The Resolution was carried.

The Chairman:—The following resolution is before the meeting, proposed by Mr. J. H. Cantlay and seconded by Mr. H. J. Walmesley:—

“That the Cochin Government, through the Planting Member of the Legislative Council, be asked to introduce a Food Adulteration Act on the lines of that in force in the Madras Presidency.”

Mr. E. W. Fowke:—The Government of Mysore be also added to the resolution.

The Chairman:—Mr. Cantlay, do you object to the Mysore Government being added?

Mr. J. H. Cantlay:—Not in the least.

The Chairman:—The Resolution now reads as follows:—

“That the Mysore and Cochin Governments, through the Planting Members of the Legislative Councils, be asked to introduce a Food Adulteration Act on the lines of that in force in the Madras Presidency.”

The Resolution was carried.

The Chairman:—If it is of any interest to know how the price of tea which is purchased at from 0-4-6 to 0-4-10 per pound comes to 0-3-0 a pound when sold to the wholesalers in the Villages, Mr. Christie has the figures here.

Mr. E. W. Christie:—We bought 26,500 pounds of tea at an average cost of from 0-4-6 to 0-4-10 per pound, worth Rs. 8,000 and odd. It was bought at the Port Commissioners' Tea Warehouse. The charges for bulking, packing, handling and carting up to my office in Park Street, Calcutta, were Rs. 266. The cost of 1,327 twenty-pound chests at Re. 1 each amounted to Rs. 1,327, total Rs. 9,600. Less proceeds of 238 original chests of other sizes Rs. 222-14-0. So that the cost was reduced to Rs. 9,378. It thus came to 0-5-7 per pound landed at Park Street. Cartage to Howrah and freight 0-0-11 a lb. Octroi at destination 0-0-6. Paper packets delivered free with tea 0-0-8. These are packets for one pound, half pound, quarter pound, two annas and one anna packets, all bearing the picture of the coin which the quantity costs, so that the illiterate people may know. The total cost works out at 0-7-9 per pound. We give this to the shopkeeper at 0-8-0 a pound, he passes it on to the small shopkeepers at 0-9-0 per pound and he in his turn gives it to the consumer at 0-10-0 per pound.

Mr. P. W. Davies:—Is it necessary to buy 26,000 pounds of tea at a time? Why not buy small quantities?

Mr. E. W. Christie:—Twenty-six thousand pounds, of course, is a big quantity, but I do not know if it added to the cost per pound. I should rather imagine the opposite.

Mr. R. N. W. Jodrell:—Will Mr. Christie give us some idea of the probable quantity of tea which might be delivered at Bangalore as the first instalment?

Mr. E. W. Christie:—In Calcutta we tried to make a point of taking a little from each of the Agency Houses, who had in reply to a circular offered this tea, and, I think, we probably bought more than what we wanted to.

Mr. R. N. W. Jodrell:—But what quantity would be delivered at Bangalore? Could you give the figure?

Mr. E. W. Christie:—Probably 5,000 pounds a month to begin with.

Mr. R. N. W. Jodrell:—We have 127,000 acres of tea. I would suggest that we get the requirements for the first six months and then ask our Secretary to address some of the members and firms in South India as to whether this quantity would be forthcoming. We will get an idea of what is required and we can base deliveries on an acreage system.

Mr. E. W. Christie:—Fifty thousand pounds for the first six months.

Mr. G. R. Strachan:—Is this leaf grade or dust grade?

Mr. E. W. Christie:—Leaf grade. In the introduction of tea to those who have not tasted before, we use the leaf. We have always done that and we can say that it shuts out the imitation dust and all that. After the people have learnt to drink tea, there is a market for selling there. We retire and the merchant comes along and offers dust and other teas. The dust is very popular, but we only use leaf in our propaganda work.

Mr. E. H. Stanes:—I ask, Sir, if there would not be a certain amount of saving if the tea was not re-packed?

Mr. E. W. Christie:—The question of tea gardens supplying us in Calcutta or rather supplying to Bareilly or Ambala where we wish the tea to be sent in 20 lb. chests was discussed in Calcutta, and the decision was arrived at that the shopkeeper always liked to look at the tea and be sure of getting a tea of regular appearance, so that is the reason why we decided to bulk it. Tea direct from the garden varies so much in appearance.

Sir Fairless Barber:—I think there should be a contribution on some basis. I should like to hear suggestions made on those lines.

The Chairman:—I have asked our Secretary to make a note of this. He will find out the quantity of tea that is required and he will send a circular to the District Associations and big Companies asking them whether they will contribute on some basis for six months.

Sir Fairless Barber:—You must lay down the basis here definitely.

The Chairman:—Somebody must bring up a resolution or leave it to the Executive Committee to go into it.

Mr. R. N. W. Jodrell:—It will have to be on an annual basis—fifty thousand pounds for the first six months. We have 127,000 acres. We would suggest a figure at 4½ annas a pound in 20 lb. chests at Bangalore.

The Chairman:—Any chest you like. They have got to bulk it there so as to lose the identity of any special marks. Somebody may draft a resolution or leave it to the Executive Committee to work it out.

Sir Fairless Barber:—Leave it to the Executive Committee.

The Chairman:—Does it meet with everybody's wishes that the Executive Committee should go into this matter?

Mr. E. W. Fowke:—I think that is a sound thing to do.

Mr. R. W. Levett:—I understand that a large quantity of Northern India Tea is sold down South. Is Mr. Christie prepared to give us a guarantee that in the future, provided he gets South Indian Teas, he will limit himself to those?

Mr. E. W. Christie.—We do not use Northern India Tea in Southern India. Northern India Tea may find its way down here, but it has got nothing to do with the Tea Cess Committee. For our propaganda work in Southern India at the present moment, we have taken the teas which are available in Southern India and no other. It will not be profitable to send tea from Northern India to Bangalore for propaganda work if we can get it here.

The Chairman:—I should like on your behalf to thank Mr. Christie for coming all the way from Calcutta to see us and Mr. Orton and Mr. Potter for attending the meeting to-day and putting all the information that they have at our disposal. (Applause.) I trust that from next month all the South Indian planters will supply one pound of tea per acre per annum to the Tea Cess Committee for propaganda work and nobody will feel that he has given away very much.

ELECTION OF AUDITORS.

The Chairman:—The next thing on the agenda is the election of the Auditors. I propose:—

"That the present Auditors, Messrs. Fraser & Ross, be elected as Auditors for the current year on the same remuneration as heretofore."

The Resolution was carried.

ELECTION OF CHAIRMAN.

The Chairman:—The last business of the meeting is the election of the new Chairman for the forthcoming year.

The Secretary passed round the ballot papers and the votes were then counted.

The Secretary:—The result of the ballot is that the present Chairman, Mr. C. R. T. Congreve, is unanimously elected Chairman again for another year. (Loud and prolonged applause.)

Mr. C. R. T. Congreve:—I have to thank you all for the very great honour you have done me in re-electing me Chairman for the second year.

I further want to thank you all very much for the whole-hearted way in which you helped me at this meeting to get through our business in a reasonable time. There has been no delay. I think we have done as much business this year as we have been doing in the former years. We stuck to the business, with the result that the meeting has been finished in record time.

There are two points which have struck me most. One of them—which, I think, everybody in the Planting Districts should consider—is the tying of the hands of the delegates who attend the meeting. Year by year it is quite obvious that the delegates are being given a freer hand than what they used to be, but, at the same time, at this meeting we have had a case, as has happened at

all meetings, where a delegate's hands have been tied. Surely, it must be common knowledge to everybody that if a delegate is sent down to attend any form of meeting with his hands tied, his Association cannot get the full benefit from his services that it should get. It is quite impossible for any Association or anybody to know what arguments may be brought out for or against any motion. The very idea of having a meeting is that the delegates from the various Associations should hear the arguments and be able to use their own discretion as to which way it would be in the best interest of their Association to vote. I trust everybody will go back and talk about this at their Association's meeting.

Another point which has struck me very much at this meeting is the necessity for greater knowledge of the work of the Association being communicated to the District Associations through the General Committee. I consider that the first duty of the Executive Committee should be very careful to consider this matter and to find out the best way of keeping the General Committee fully informed of everything that is taking place in regard to the Association. We are unfortunate in South India so far as our Association is concerned and it may be impossible to hold more meetings of the General Committee than have been held in the past. But I do think that some arrangement can be made which will give the General Committee, and through them all the District Associations, a greater knowledge of the affairs of the U.P.A.S.I. and help them to take that great interest which we all want in its affairs, if this Association is to continue to expand in the way it has done during the last fifteen years.

I think, this covers everything that I have to say, except to thank you once more for re-electing me as the Chairman for the ensuing year. (Loud and prolonged applause.)

Mr. H.J. Walmsley :—I have been asked by the Members of the Executive Committee to express on their behalf our appreciation of the manner in which Mr. Congreve has carried out his duties as the Chairman during the past year. The Executive Committee have had a very difficult year to face and no one could have worked harder or with greater ability, with greater tact, kindness and understanding than Mr. Congreve has. It is with very great pleasure that we note that you have also recorded your appreciation of our Chairman's services by unanimously electing him as Chairman again for the next year. (Loud applause.)

Mr. E. W. Fowke :—I should like to propose a vote of thanks to Mr. Congreve and to the Executive Committee for having carried through successfully another year and another vote of thanks to Mr. Congreve for consenting to continue as Chairman for the next year.

The Chairman :—Mr. Walmsley and members of the Executive Committee, I have to thank you for your expression of appreciation. I can only say that it is because of the whole-hearted support of you, Gentlemen, and all the officials of this Association, that it has been possible for me to carry on the work during the past year.

I now declare the meeting closed.

SCIENTIFIC DEPARTMENT
REPORTS
1930-1931

**TEA SCIENTIFIC DEPARTMENT.
ADMINISTRATION REPORT FOR 1930-1931**

OF

Dr. W. S. SHAW, Ph.D., M.Sc., A.I.C.,

Tea Scientific Officer, U.P.A.S.I.

Staff.—During the year under review the only alteration in the Staff has been the appointment of a new Field-Writer, a change made in view of the fact that as the new plots come into bearing, more responsibility will then rest with the Field-Writer. It will be impossible for the present European Staff to superintend the weighing of the leaf obtained from the increased number of plots, which will ultimately require individual recording, although up to the present, with only 3 acres of mature Tea, this has been possible.

As a result of proposals for the reorganization of the Tea Scientific Department, the Assistant Tea Scientific Officer was given provisional notice in September that his agreement would not be renewed. In December, the Executive Committee withdrew this notice.

In accordance with Clause No. 11 of agreements made with Scientific Officers, the Tea Scientific Officer and the Assistant Tea Scientific Officer have intimated their intention of not renewing their agreements with the Association. It is contended by these Officers that amicable co-operation with the Ceylon Research Institute would be mutually beneficial, but subjective affiliation would produce no advantages for South India and would serve no useful purpose in solving the Scientific problems of Tea in South India. Reasons for this contention were given in a confidential Memorandum to the Executive Committee, referred to later under "Reports."

Labour.—This has been fairly satisfactory throughout the year as the labour force obtained at the beginning of the year has settled down and appears likely to remain permanently. The number of Coolies has been slightly reduced during the last six months, but may have to be increased again during the coming year.

Health.—The health of the Staff and labour force has been good. Anti-Malarial precautions have been taken and during the worst malarial season, April to June, Coolies suffering from fever have been given Quinine under personal supervision. The number of cases of ankylostomiasis observed appear to have been reduced, probably as a result of the provision of latrines.

Touring.—As a result of the desire for economy, touring has been reduced. The Tea Scientific Officer visited the Nilgiris in May and North Mysore in December 1930. The Assistant Tea Scientific Officer visited the Anamallais and Kanan Devan Districts in April 1930. The scheduled visits to the Wynad and to Central and South Travancore were omitted. The Tea Scientific Officer twice attended personal interviews with the

Directors of Companies by request. At the request of the Executive Committee, the Tea Scientific Officer accepted an invitation to attend the Second Annual Conference of the Tea Research Institute of Ceylon and made a short tour through some of the Ceylon Tea Districts.

Committees.—A Committee appointed by a special Planters' meeting in Ootacamund in June 1930 to discuss the future policy of the Tea Scientific Department, visited the Experimental Station in June and again in July after the Station had been seen by the Director of Agriculture, Madras, whose opinion was invited by the Committee.

At the Annual General Meeting of the U.P.A.S.I. at Bangalore in August the Tea Advisory Committee was abolished.

Correspondence.—During the year ending 31st March 1931, 819 letters have been received, and 756 despatched. This shows an appreciable decrease compared with the previous year, a change which may be attributed to a decrease in the correspondence arising from administration rather than from advisory work; less requests for information and advice concerning pests and diseases of only minor significance; and less correspondence in connection with problems arising during district tours. It is satisfactory to note that direct correspondence with the Directors and General Managers of Tea Companies has increased.

MATURE TEA PLOT.

(a) **Yield.**—The yield from the Old Tea for the whole year averaged 421 lbs. of made tea per acre, being 55 lbs. per acre less than that for the previous year. The drop was chiefly due to the pruning of 27 out of the 54 sub-plots into which the old tea is divided. The total yield from the unpruned sub-plots was almost exactly equal to that obtained from the same sub-plots unpruned last year, the variation being less than one per cent. The total yield is 21 lbs. per acre in excess of that required under the terms of the lease.

The monthly yields from the mature tea have been as follows:—

MONTH.	Green Leaf.		Made Tea.	
	During Month.	Total.	During Month.	Total.
April 1930	463	463	38.6	38.6
May "	524	987	43.7	82.3
June "	784	1771	65.3	147.6
July "	488	2259	40.7	188.2
August "	472	2731	39.3	227.6
September "	346	3077	28.8	256.4
October "	449	3526	37.4	293.8
November "	300	3826	25.0	318.8
December "	427	4253	35.6	354.4
January 1931	320	4573	26.6	381.1
February "	247	4820	20.6	401.7
March "	238	5058	19.9	421.5

(b) **Monthly Pruning Experiment.**—This was continued on the lines recorded in the last Annual Report and the twelve month cycle completed. It is interesting to note the time for which each plot was out of plucking as a result of pruning.

The normal procedure for plucking adopted is a seven day round which is maintained throughout the year except during the height of the dry weather when one complete plucking round may be omitted. Although this procedure is not conducive to the obtaining of maximum yields it permits standardization of the plucking rounds, which is of far greater importance from an experimental standpoint. It is thus possible to state the number of plucking rounds omitted for each plot under this pruning scheme. Tipping was left until growth was somewhat more advanced than is generally permitted in accordance with the policy of light treatment adopted throughout for the old tea. Tipping was carried out on days coincident with the plucking rounds, again for purposes of standardization.

The following table shows the number of plucking rounds omitted between pruning and tipping, as a result of pruning in different months:—

Lot.	Month of Pruning.	No. of Plucking rounds omitted.
1 A	November 1929	17
2 A	December „	14
3 A	January 1930	11
4 A	February „	9
5 A	March „	11
6 A	April „	14
7 A	May „	12
8 A	June „	14
9 A	July „	17
10 A	August „	17
11 A	September „	13
12 A	October „	12

From these figures, it might be concluded that February is the best month for pruning, judged from the aspect of rapidity of recovery from pruning. Other points must be considered, however, the most important of which is the effect of pruning during the dry weather upon the incidence of Branch Canker.

Other details which are relevant to these figures include the facts that the tea concerned is of uncertain age, probably more than 45 years old, and has never been manured; the whole area is shaded by tall blackwood trees; there is on the whole a distinct trend towards bushes of lower average, at from Plot 1 A to Plot 12 A; no rain whatever fell between the 27th of December 1929 and the 27th March 1930 and the South-West Monsoon was abnormally light in June and July but rains persisted abnormally into August, September and October.

(c) **Pruning.**—In the last Annual Report it was proposed to prune sections A and C of the old tea in August and September 1930. Actually only section C was pruned in this period as section A did not seem to require pruning. Section C being composed of sub-plots with bushes of lower jat than of section A and, moreover, being completely unshaded was ready for pruning. A new wood put on during the previous two years was fairly satisfactory under the circumstances, and in such bushes which possessed frames these were improved by comparison with those revealed during the previous pruning. The type of pruning done was the same as that for the monthly pruning experiment, 4"—6" of new wood being left and all shoots of more than pencil thickness were left except in bad cases of canker. The area pruned was out of plucking for 13 weeks.

(d) **Variation in Sub-Plot Yields.**—Individual sub-plot yields have now been recorded for two years. These figures are still insufficient to give an adequate idea of the initial fertilities of the various sub-plots. For instance by comparing the yields for the last 12 months with the yields for the previous 12 months, a ratio can be obtained expressive of the annual variation. For plots which have received no distinctive artificial treatment this ratio should be approximately constant except for the differential response to natural stimuli of plots possessing variable inherent characteristics. Such characteristics may be in the fertility of the soil, the jat of the constituent bushes, proximity of trees giving shade, etc. Of the sub-plots under observation in this respect there are 39, divided into groups of 20, 11 and 8, which can reasonably be compared in this way. Comparing the individual ratio for each sub-plot with the average ratio for its appropriate group it is found that in 14 plots out of the 39 the variation is greater than ten per cent. In effect this means that mere experiments started which depend for their measurement on plucking records the possible experimental error alone would amount to at least ten per cent. This renders it impossible to obtain results expressible in any but the widest possible terms. The investigation on a strictly statistical basis of the results obtained shows that about 75% of the plots show deviations of more than twice the Standard Deviation which may, therefore, be stated to give significantly different responses to the same natural causes. While efficiently conceived experimental design, together with statistical analysis, can overcome the influence of a number of adverse circumstances, in the present case there are an insufficient number of plots available to make this procedure feasible. Hence it is imperative that the plots be kept under observation for a further period until a greater degree of stability can be found.

It is worth noting that section C, which was pruned during September 1930, shows a more reasonable degree of consistency, than either section A or B.

Skiffing Experiment.—In last year's Annual Report it was explained that in view of the importance of skiffing from the aspect of control of *Helopeltis*, six plots of the old tea had been skiffed and three of these had been manured, not so much with the object of obtaining exact experimental evidence, but to gain first-hand experience of the behaviour of tea under these circumstances.

The plots under this experiment were last pruned in 1925 but were skiffed in September 1928 and again in September 1929. Manure was supplied to three plots in October 1929 at the rate of 300 lbs. per acre of a mixture containing—

Ground-nut Poonac...	..	25	per cent.
Sulphate of Ammonia	..	37½	„ „
Steamed Bone Meal	..	25	„ „
Muriate of Potash	..	12½	„ „

Plucking was continued throughout the year and in January 1931 a further application of manure was made to the three manured plots, at the rate of 300 lbs. per acre.

There were two reasons for applying the manure at this time, firstly, to see whether manure applied during the dry weather was available to the tea, and, secondly, if the manure did act immediately whether it would be of material benefit to the tea during the dry season.

By comparing the yield of the manured plots with those of the unmanured plots, and taking into consideration the initial variations in the plots as shown by the records for 6 months prior to the application of manure in October 1929, it is found that an increase of 20 per cent., equivalent to about 100 lbs. of made tea per acre can be attributed to the influence of the manure. Calculating the value of this increase on the lines suggested by Cooper (*J. P. A. Quarterly Journal*, 1928, part IV) it may be assumed that such a result would result in a profit, if the price realized for the tea produced exceeds 7½ annas per pound.

The second application of manure does not appear to have affected the yields of the plots at all, and it would appear that manure applied in January will not show any results during the dry weather. In fact, since the application of manure there has been no significant difference between the yields of the manured and the unmanured plots, whereas immediately after the first application of manure there was a difference between the yields of the manured and the unmanured plots, of nearly 20 per cent. Since the advent of rain early in March the manured plots have tended to give weekly yields greater than those of the unmanured plots, but this tendency has not been in operation long enough to make any significant difference. It appears probable that under conditions of drought the factor determining yields is the amount of soil moisture available and that the yield is not affected by the presence of other food materials.

In general the behaviour of skiffed tea appears to be much the same as that of normally pruned tea. The yield falls off very greatly during the dry weather to an extent similar to that of tea in its third year from pruning. During the 'forking months' such as May, skiffed tea appears to flush in an even more exaggerated fashion than normally pruned tea.

As has been explained previously the results of the skiffing and manuring experiment are only to be regarded as preliminary indication and no claim is made that these results are of statistical application.

IMMATURE TEA.

1926 Plot.—*Supplying*—This plot was supplied up at the end of June after the 1930 plot had been completed. The supplies put out were as follows:—

Sub-Plot 1.	Rangamatti	85	Stump Plants.
" " 2.	Nakhati	62	" "
" " 3.	Mittenguri	100	" "
" " 4.	Rajghur	180	" "
" " 5.	Dhoolia Manipuri	289	" "
" " 6.	" "	350	" "

These supplies have again not done well and extensive supplying will be required again. In sub-plot 6 a patch equivalent to about 150 plants has been abandoned temporarily as a result of the presence of two very large old stumps of a species of ficus, which for the last four years have regularly inhibited the growth of tea plants. These stumps have been removed completely and the area has been thickly trenched.

This plot is very badly over-run with grass (haliari) which it seems impossible to eradicate at present, although where there is a good cover of tea the amount of grass is much reduced. Consequently the grass has been kept down as much as possible by frequent mamooty digging and circle weeding, in order that the tea plants should have as good a chance as possible of becoming established. The production of a cover of tea seems to appear the only hope of ultimately eradicating this grass.

Another drawback to this plot is the fact that it becomes water-logged during the monsoon and becomes baked and very dry in the dry weather. With a view to remedying this, a trenching system has been put in, which will be repeated from time to time till the whole area has received an adequate deep cultivation.

This plot was pruned at 3 inches above the last cut, in August, and supplies planted in 1929 were pruned to 2 inches in April or in the case of stump plants at 5 inches.

After the last pruning the best mature bushes of the plot were brought into tipping and have been plucked lightly and 183 lbs. of green leaf was obtained during the last five months.

Sulphur Experiments.—In continuation of the experimental application of Sulphur to this clearing in October 1928, monthly determinations of the acidity of each plot were continued until the 12 months were completed. As a result, a satisfactory idea has been obtained of the variation of a Ph of the soils throughout the year and of the effect produced by varying amounts of Sulphur.

Considering first the check plots to which no Sulphur was added, it was found that throughout the twelve months of the year there was a considerable variation in Ph, which closely followed the climatic conditions, particularly where these affected the soil moisture content. Starting with an average value of Ph 6.24 in October 1929, the value decreased quite steadily till it reached a minimum of 5.80 at the end of April. During this period there was little rain of any significance, only 6½ inches being obtained

between the 1st of November and 6th of May. In the next four days however 9.8 inches of rain fell and within a week the Ph value rose from 5.80 to 6.07. Subsequent to this heavy rain early in May, the weather remained warm and fairly dry until the second week in June after which comparatively light but steady rains set in, and meanwhile the Ph value fell back to 5.87 and then steadily increased until it reached a maximum of 6.18 on the 21st of July. From this time onwards until the cessation of regular determination of acidity the value remained fairly constant at about 6.10, the weather being steadily wet without providing any outstandingly heavy days.

This experience agrees with the findings of the majority of investigators of this subject among whom the opinion is that the dehydration of mineral soils causes an increase in acidity (a fall in Ph) which is particularly noticeable in soils of original low acidity. All workers do not agree that drying causes significant changes in acidity, but it appears that this division of opinion is due to the varying effect on different types of soil. It is probable that organic soils such as peats do not exhibit this phenomenon to a comparable degree but the majority of South Indian Tea soils would not fall into this category. One author states that in water-logged soils which he investigated he found that as a result of denitrification, attributed to enzyme action rather than biological action, Ammonia was produced in the soil with a consequent rise in Ph. This might quite well apply to the plots on which the experiment was made here.

The remaining plots were each treated with quantities of Sulphur equivalent to $2\frac{1}{2}$, $5\frac{1}{2}$ or 10 cwt. of Sulphur per acre. This was applied early in October 1929. The effect produced on the Ph values was noticeable immediately, but after the first fortnight there was little further change in excess of that noticed in the check plots themselves. The variations observed from week to week were probably mainly due to sampling errors, since there was little progressive effect until the first rain in March and this increase was not consistently maintained. From time to time when heavy rain fell in May till the end of the year there was a marked distinction between the effects of the various applications. The $2\frac{1}{2}$ cwt. application produced only disappointing results giving no permanent increase in acidity over the control plots. The effect of the $5\frac{1}{2}$ and 10 cwt. applications was approximately proportional to the amount added. The following table shows the difference in Ph value caused by the Sulphur expressed by the average of the last four determinations made:—

Application.	10 cwt.	$7\frac{1}{2}$ cwt.	5 cwt.	$2\frac{1}{2}$ cwt.
Fall in Ph value.	.58	.40	.25	.03

From these figures it is unlikely that any one application of Sulphur could be made under estate conditions to a field of mature tea which would affect the soil reaction to a commensurate extent.

While it is probable that the difference observed as the result of an application of $7\frac{1}{2}$ cwts. of Sulphur would be of significant benefit, it is highly improbable that this benefit would repay the necessary outlay amounting to nearly Rs. 100 per acre.

From this point of view the experiment has not been attended with pleasing results but the data obtained make it permissible to put forward two suggestions which appear worthy of practicable trial.

Firstly, where nursery soils are found to be of insufficiently acid, it would be feasible to apply Sulphur to the beds at a rate of $7\frac{1}{2}$ cwts. to 10 cwts. per acre at a cost of from 4 to 6 annas per 1,000 plants. This is comparatively a small outlay and would quite likely be well repaid by the resulting better growth.

Secondly, in planting up areas where the soil is insufficiently acid, it is suggested that Sulphur would be mixed with the soil used for filling pits. So applied the soil immediately around a young plant and of most importance to the plant would be as much affected by an application of 1 cwt. per acre as it would be by 10 cwts. of Sulphur if broadcasted and forked in like a manure. This Sulphur would be in the place where it could do most good, and being below the surface would be in relatively damp soil for a long period in which it would probably develop its maximum effect readily. This should enable the plant to become well established before having to resist the influence of an unfavourable degree of acidity, and the emergence of the plant from the sphere of influence of the sulphur would be gradual and permit a possible acclimatisation.

It may be added that Sulphur is not harmful to plants except in very great excess and moreover acts as a mild disinfectant and as such would also have a beneficial effect. It should also be noted that this procedure is only suggested where through inadvertence or necessity areas which appear unsuitable in this respect (of acidity) are to be planted.

1927 Plot.—This plot has on the whole shown marked improvement and development through the past year. It has been pruned on the same lines as the 1926 plot and has been tipped and plucked since November. As it has been decided to give only light treatment to this area for the present and the dry weather is necessarily a difficult period for tea particularly young tea in the absence of shade, it has not been brought into regular plucking rounds but has only been plucked intermittently. 51 lbs. of leaf have been obtained. The upper portion of this plot only still shows poor growth and there are still numerous vacancies, but in appearance it is better than at the same period last year.

1928 Plot.—With the exception of the contour portion the 1928 plot has developed well during the year. All healthy plants including some of the previous years' supplies were pruned to 2 inches in April 1930. Probably as a consequence of the unusual distribution of rainfall recovery from this pruning was very much slower than has been observed under otherwise parallel conditions.

As a consequence of a number of arguments with planters concerning the merits of high pruning young tea rather than low, an experiment on this point has been made on two plots of about 400 bushes each. Plants in these plots have been pruned to 18 inches on side branches and 12 inches in the centre on the main stem, and were subsequently tipped and have since been plucked lightly. 73 lbs. of leaf have so far been obtained from these plots.

The main argument in favour of this type of pruning is that tea so treated can be brought into plucking much earlier and that good frames can ultimately be produced by gradually lowering the pruning level at each pruning cycle, while fresh shoots are obtained from low down on the stem; moreover the number of casualties is less. The argument against this system is that the number of shoots which develop from low down on the stem after a high prune and which develop into the components of a satisfactory frame, are not in fact adequate and that therefore the ultimate frame will be inferior to that produced *ab initio* as a result of a low prune. Consequently a low prune originally will ultimately give rise to higher yielding tea than that originally high pruned and the advantage gained by the latter in the first two or three years will not be maintained. (See *I. T. A. Journals*.)

Comparing the two systems from a physiological point of view, it is obvious that a low prune is the more satisfactory. When the plant is originally cut down to a low level, say two or four inches above the collar, the whole residual energy of the plant is concentrated in putting out three, four, five or more stems, all of approximately equal vigour. The whole vitality of the plant is transmitted directly into these stems which accordingly develop, forming good healthy twigs and ultimately satisfactory fundamental branches. With the original high prune except for those side branches originally formed at a height of less than about 9 inches above the ground which are few in number and lacking in symmetry, the ultimate frame depends on any shoots which may happen to arise from the main stem adventitiously.

From their adventitious origin these shoots will arise in very irregular fashion, their nourishment will be received to unequal degrees, and certain branches will suffer at the expense of one, or possibly two, of the more vigorous ones.

Practical evidence of the statement that high pruning is not conducive to the development of a satisfactorily low frame, may be found in certain districts of South India. The old system of pruning young tea at 9" to 12" has resulted in a large number of so-called "Wine glass" bushes, and has necessitated the collar pruning of these bushes in order to produce a satisfactory framework.

At the same time, in the case of this old system, apparently no subsequent attempts to form a framework were made, and it is possible that by 'coming down' gradually on originally high pruned bushes the necessary framework to a bush would be realised. In order to determine this, the two plots under discussion have been inaugurated.

1929 Plot.—The sub-plots comprising this small area were only moderately successful as the vacancies amounted to about 20 per cent. This is mainly attributable to drought and partly to the very gravelly soil, which forms part of one sub-plot. With respect to these sub-plots two points may be noted:

(i) About 200 eighteen months old bed plants stumped at 2 inches above the collar were planted in this clearing. Amongst these plants there were only 7 failures.

(ii) The greater part of the 1929 planting was done with Chapelon basket plants as representing Ceylon seed. The growth of these plants has been quite good, but unfortunately they have proved to be of hybrid extraction and the majority have already flowered and borne immature seed.

1930 Plot.—The total area planted up in the past year was 2.38 acres divided into 3 blocks, the first being between the Assistant Tea Scientific Officer's Bungalow and the Government Road, the second being between the main portion of the 1928 Plot and the Government Road to the North of this and the third flanking the western side of the 1928 plot and the second block of the 1930 plot.

The first block, Plot 33, was planted on the 7th, 9th and 10th of June, with Dhoolia Maniam basket plants spaced 4 feet by $3\frac{1}{2}$ feet. The area of the plot is 0.57 acres and the number of plants used was 1,780.

The second block, Plot 34, was planted between the 11th and 15th of June with Dhoolia Maniam basket plants spaced similarly to the 1928 main block, i.e., 4 feet by 4 feet triangularly but not quite equilaterally with respect to the third side. This arrangement was used so that plots might be as regular in outline as possible with a minimum of encroachment on to unsuitable areas. This plot has an area of 0.76 acres and contains 2,575 plants.

The third block is sub-divided into 3 plots, Nos. 35, 36, and 37. The spacing of plants is the same as for Plot 34.

Plot 35 was planted with Dhoolia Maniam. The area is 0.47 acres and includes 1,600 plants. No preservative measures were taken with the baskets used for the Dhoolia Maniam plants and as these were of poor quality, owing to the local shortage of bamboo, a large number of basket plants were spoilt through the premature rotting of the baskets. Consequently to this area 600 basket plants were used and the remainder were made up with ball plants. This area was planted on the 16th, 17th and 25th and 26th June.

Plot 36 was planted with Markong basket plants on the 20th and 21st June. The area of the plot is 0.25 acres and includes 840 plants.

Plot 37 was planted with Taikong basket plants on the 19th and 20th June. The area of the plot is 0.33 acres and includes 1,140 plants.

These plots have been reasonably successful. The month of June was not sufficiently wet for ideal planting conditions and on many days there was fairly strong wind accompanied by Sun.

Consequently in Plot No. 33 a large number of plants wilted during the first week of Planting and did not always recover. Many of these plants were removed and fresh plants substituted about three weeks later. As a result of this immediate supplying up the total number of vacancies in the whole area planted up with basket plants was less than 10% up to the end of March.

The bed plants planted up as ball plants were not nearly so successful and the number of vacancies here amounts to more than 25%.

The growth of the successful plants in the plots has been normal.

The drainage of these plots was considered after the actual planting was done and was then arranged so that ultimately these drains may be used as sub-plot boundaries. In the lower part of Plots 34 and 35 such a drainage system could not conveniently be employed, and consequently a trenching system was used. As these plots stand on two slopes with sharply defined limits it was quite easy to change the direction of the trenches so that these lay across the slope in each case.

Nursery Work.—

Chapelton seed was obtained to provide plants for supplying purposes. Seed from Cotengady Estate was received and germinated. The germination of both these types of seed was normal but rather slow. The older part of the Nursery, put down in 1928 and 1929, was not shaded during the dry weather and watering was only done from the middle of the dry weather until the first rains in March. This was done with the object of observing the effects of such hard treatment. The plants have shed a large proportion of their leaves but the number killed by the drought has not been great. Until the monsoon begins the final results are not however determinable. It is possible that surface watering as distinct from irrigation may ultimately be shown to have little beneficial effect on bed plants. Such watering undoubtedly helps to maintain a healthy appearance in a nursery during the dry weather but it is unlikely to benefit the root system of a plant as it must tend to develop the surface lateral roots rather than the tap roots. In the absence of surface watering or irrigation the plants must depend on their tap roots which consequently tend to grow deeper. Consequently up to a point the imposition of difficult conditions may benefit the plant.

The question remains whether such a period of struggle permanently impairs the vitality of a plant; in extreme cases the answer is in the affirmative, but whether under normal conditions of drought and soil texture this also holds, is not so obvious. It must be remembered that although tea plants may shed their leaves, this is not necessarily a sign that the plant is dying, but is only indicative that the plant is adapting itself to new conditions. The dying back of the stem itself on the other hand is an indication that the plant cannot adequately cope with the adverse circumstances, and although the plant may survive after a limited amount of this has taken place, the dead tissue is a potential source from which disease may arise and be disseminated. It is, therefore, suggested on theoretical grounds only that until the plants start

dying back from the top of the stem that the supply of moisture available to the plant is not less than that to which the plant can adapt itself. Whether such a theoretical contention would be supported by practical evidence requires experimental proof. In times of depression the subject is one which might be well worth attention. It should be unnecessary to point out that experiments of this type might easily lead to extensive casualties unless under close supervision.

Seed Disinfection.—It is frequently found that the seed on germinating beds becomes affected by fungus. Although this phenomenon may often be very much accentuated by overwatering, the limitation of watering is probably not a perfect and wholly satisfactory cause. To provide an alternative preventative measure the use of formalin has been suggested and various strengths tried in practice. Although this appears to be moderately successful the formalin treatment is still not ideal. Sulphate of Iron suggested itself as another possible fungicide and has been tried here with better results but not on a large enough scale to be absolutely convincing.

The results of comparative experiments carried out on a neighbouring estate with a 2½ per cent Sulphate of Iron solution as against a 3% Formalin Solution have shown that the Sulphate of Iron treatment have slightly better results than the Formalin treatment. Moreover the bulk of the germination of the seeds treated with Sulphate of Iron was much more rapid than that of the seed treated with Formalin.

Since Sulphate of Iron (Green Copperas) is cheaper than Formalin and appears to give as good or better results than Formalin and in the absence of any new data to the contrary, in future Sulphate of Iron will be recommended in preference to Formalin as a seed fungicide.

It is noteworthy that Sulphate of Iron has a slight effect on the appearance of the seed treated. These take on a darker colour in the test and light brown connective tissue between the shell and the endosperm is also frequently stained brown. This is probably due to the presence of tannin in these parts and has no ill effects on the seed. On the contrary fixing the iron the fungicidal effect may be operative over a longer period.

Ants.—While dealing with seed germination, mention may be made of ants which although they may cause little real damage are yet a source of annoyance. Repeatedly tarring the legs of the germinating table is used as a preventative measure. This appears to be efficient if carried out carefully but where this fails and it is found desirable to remove ants already in possession, the most effective practicable method at present found is the use of Cyanogas (Calcium Cyanide). This is perfectly safe to use if proper caution is taken. This substance should be dusted lightly over the ant-infected patches shortly after watering and after the germinated seed have been removed. The seed is then covered over with jute hessian and left for about 24 hours. This process requires European supervision since the gas produced by the action of moisture on the compound is very poisonous and if Coolies have to work in an atmosphere contaminated with this gas or if they

get the powder on their persons they may suffer from mild or even acute poisoning. The remedy for such poisoning is the inhalation of ammonia or in more serious cases the use of rapid emetics.

The residue after the action of water on the powder is quite harmless being merely slaked lime. Under the conditions quoted the action should take at most only a few hours.

Reports.—During the year reports were written for the Bhadra Valley Tea Estates and for Rockwood Estate (Travancore). The first of these dealt with soil conditions and also with tea cultivation in districts suffering from drought; and the second with the treatment of tea affected by *Helopeltis* and dealing with cultivation, pruning and manuring.

Mention may be made here with reference to a Memorandum submitted to the Executive Committee by the Tea Scientific Officer. The production of this memorandum was prompted by the findings of the special Sub-Committee, convened to consider the future policy of the Tea Scientific Department, the decisions of this Sub-Committee having been accepted at the Annual General meeting in August 1930.

In this Memorandum, a precise account of the work accomplished by this Department was given; various suggestions made by the Sub-Committee were criticised, especially with reference to the proposed amalgamation with Ceylon; reasons, indicating the inadvisability of such amalgamation were given fully; finally, a scheme for the future development of the department under normal conditions was detailed, involving the engagement of two extra European Officers and representing the work to be carried out by each of the Officers.

It was considered advisable to limit the distribution of this memorandum, on the grounds that certain portions of it would serve no useful purpose, if published.

Laboratory Investigations.—Thanks to the limitation in the amount of touring and the reduction in the amount of field work requiring European supervision, it has been possible to devote much more time to chemical investigation in the laboratory. The work published in "The Tannin Principles of Tea", Part I, which appeared in August 1930, has been very much extended. Further samples of theotannin have been prepared; the analyses of these samples have indicated the necessity for modifying previous conceptions of theotannin. Various derivatives, bearing in mind the technological perspective, have been prepared and investigated. Temporary concepts of the constitution of theotannin have had to be modified. Work done on made tea has not led to such conclusive results as is the case with green leaf investigations, but even so the results obtained are enlightening, although no complete explanation of them is at present possible. This work has shown that the oxidation theories of the fermentation of tea are somewhat exaggerated representations of the true facts. The amount of oxidation taking place during this process is, indeed, very small and cannot explain the production of the colour of fermented leaf and made tea infusions. A limited amount of oxidation takes place, but the major cause of the obvious changes during manufacture will more probably be found to be

a result of hydrolysis. It also appears that pectins are far more important in their bearing on the characteristics of tea infusions than has been suspected in the past.

Finally, following up a suggestion made in the "Tannin Principles of Tea," Part I, it has been established that within limits the proportion of oxidisable true non-tannins in green leaf is approximately constant and there is strong evidence that by using the iodimetric method a single estimation of the total oxidisable value can be utilized to give a close approximation to the true tannin value without performing the precipitation of tannin which is not only tedious but a mine of possible inaccuracies dependent on small variation in technique. It has been found convenient to study the seasonal variation of the tannin content of green leaf at the same time and accurate figures can be quoted to show this, but little real importance is attached to these results at present as they do not suggest any possible new constructive inferences.

Comparative analyses by the iodimetric and formalin method have been carried out on a large number of 'made teas'. Bulk samples and grades from a number of estates have been investigated. Teas from individual estates show marked similarities between themselves, but significant differences are found between the South Indian Teas at present investigated and Ceylon Teas similarly analysed.

Three relationships may be tabulated here. First the ratio of 'total oxidisable value' to 'apparent tannin oxidisable value'; secondly 'Formalin value' to 'Total Oxidisable value' and thirdly 'Formalin value' to 'Apparent Tannin Oxidisable value'. In the following table the average values of these with the percentage variation observed is shown as obtained for different Estates:—

Estate.	Locality.	No. of Teas Examined	Relationships.			Greatest Percentage from Average for Relationships.		
			I	II	III	I	II	III
1.	Nilgiri—Wynaad.	8	1.30	1.075	1.40	2%	2%	1%
2.	"	8	1.31	1.09	1.43	1%	3%	3%
3.	"	6	1.30	1.075	1.395	2%	0.5%	2%
4.	"	6	1.315	1.07	1.40	1%	2%	3%
5.	Ceylon.	12	1.26	1.07	1.345	2.5%	5%	5%
6.	"	4	1.24	1.06	1.315	.5%	1%	1%
7.	"	5	1.285	1.055	1.36	0%	.5%	.5%

It should be noticed that of the 49 teas examined, in only 8 teas was a variation of more than 2 per cent. from the Estate average found.

The accuracy of the methods used is also shown by the following results where the analyses on certain teas were repeated after an interval of a week.

Tea.	Estimation.	Apparent Tannin Oxidisable Value.	Formalin Value.
1	First	21.2 ccs N/20	27.8 mgms.
	Second	21.1	28.5 „
2	First	21.95	28.8 mgms.
	Second	22.05	29.15 „
3	First	20.85	28.4 mgms.
	Second	20.7	28.0 „

This investigation is obviously not by any means complete but is being continued as rapidly as possible. Teas from a number of Estates representing different tea districts have been obtained and when the analyses have been completed definite explanatory hypotheses can be adduced. Already considering these results in conjunction with work on isolated green leaf and made tea constituents, these hypotheses can be roughly formulated but more complete data are desirable before these can be presented in a final form.

I should like to take this opportunity of thanking the Managers of Estates for their unanimous response to my request for tea samples.

Soil Analyses.—During the year attention was drawn by an Estate Manager to a certain unmanured field in which the callus formation was remarkable and which suggested that a soil analysis might be of considerable interest. Analyses with respect to total phosphate, total potash, Nitrogen, Moisture content and acidity were made but unfortunately these did not reveal any significant features, owing to the pressure of less incidental research and the lack of subordinate staff to whom the investigation of this minor problem might profitably have been relegated, a more complete analysis could not be undertaken and the subject had therefore to be abandoned.

Soil Acidities.—From time to time during the year soil acidities have been determined on samples of soils received from

twenty-five Estates. For five Estates soil acidities have been determined for each field. From the additional data thus obtained it appears that South Indian soils are more acid on the whole than was first assumed as a result of figures obtained from other sources while there are many Estates where Ph values of higher than 6.0 are common; there appear to be almost as many where a representative Ph value is lower than 5.0. Results obtained for acidities by colorimetric methods are found to be most unreliable particularly in the case of the more acid soils. This is due to errors in technique which cause insignificant variations except in the case of, notably, acid soils.

Pests and Diseases.—No new pests and diseases of major significance have been brought into prominence during the year. Enquiries have been received concerning most of the well-known diseases but there appear to have been no eruptions of disease on a serious scale in new districts. Of pests, numerous enquiries concerning the Red Coffee Borer *Zeuzera* Coffee have been received, but although this boring caterpillar appears to be widely distributed in no case does it seem to have appeared in numbers capable of effecting widespread damage. Boring beetles in shade trees appear to have been the most troublesome pests. Specimens obtained from dadaps on one Estate were referred to the Imperial Institute of Entomology at Kensington for identification and were stated to be *Xyleborus pseudovalidus*. Two other boring beetles of the Shot Hole Borer type which were found in Tea itself were identified as *Xyleborus testaceus* and *Xyleborus andrewesi*. *Xyleborus pseudovalidus* and *Xyleborus testaceus* are species about which little is known as there are no previous records of their food plants. *Xyleborus andrewesi* has not been recorded previously as attacking tea but is known to attack *Cinchona* and *Kopria florida* in Java and *Shorea robusta* (sal) in North India. The life histories of these beetles have not been fully investigated. Boring beetles in grevilleas have also attracted attention and deserve special mention.

Grevilleas attacked by beetles usually die off from the top or die back from the ends of the branches. Galleries will probably be found throughout the tree. If the trees affected are large which is usually the case it would probably be wasteful expenditure to cut the whole tree down but such trees may be pollarded well below the dead parts and the part cut off should be burnt. The trunk of the tree may be pasted with tar from ground level to a height of about five feet. These precautionary measures are not necessarily efficient in all cases but would impede the spreading of certain types of beetles. Since the exact identification of these borers is in many cases not work for a general entomologist but for a specialist on the subject of Scolytid beetles it is obvious that exact knowledge of the methods by which these beetles spread is not available and consequently there is no guarantee of what will or will not be an adequate preventive measure. The only absolutely effective method of dealing with such pests is to cut down affected trees, dig up the roots and burn them but it is plain that this would be a more expensive procedure than the damage done justifies. In the case of a really serious infestation causing wholesale damage to trees and spreading to the tea itself such steps would probably be justified, but such cases are fortunately extremely rare.

Meteorological.—The year ending March 31st, 1931, has in many respects been abnormal from a meteorological point of view, particularly as regards the distribution of rainfall which is a dominating factor affecting indirectly all the meteorological features recorded. While April was accompanied with less rainfall than usual, that of May was excessive. June and July again provided much less than normal amount of rain while August was also not quite as wet as might have been expected. The next three months, however, brought more than twice the rainfall experienced during this period in any of the previous three years. January and February were approximately normal but a number of thunder-storms with heavy but strictly localised rain were experienced unusually early in March but these were not maintained throughout the month.

Month.	Rainfall.	Days with rain.	Temperature °F		Humidity %		Vap. Pres.		Cloud.
			Mini. mum.	Maxi. mum.	8-30 a.m.	3 p.m.	8-30 a.m.	3 p.m.	
April 1930 ..	2.42	10	66.4	84.7	85.4	62.7	23.6	22.6	35
May ..	12.61	18	65.7	80.6	84.1	73.3	22.5	23.3	54
June ..	12.97	24	65.2	74.7	90.0	85.9	22.0	23.3	67
July ..	7.81	27	64.3	73.2	90.9	84.3	20.9	21.9	69
August ..	8.73	22	63.6	74.1	89.5	86.0	20.7	22.8	58
September ..	11.53	21	64.0	74.9	92.1	87.5	21.4	23.2	58
October ..	11.68	26	64.7	75.3	93.5	82.3	22.1	23.1	56
November ..	7.22	16	63.4	75.3	93.0	76.6	20.7	21.6	45
December ..	0.81	5	60.0	76.0	88.0	63.9	18.4	18.9	35
January 1931 ..	0.00	0	59.4	77.8	91.3	52.5	17.6	15.3	24
February ..	0.00	0	59.3	84.5	88.2	37.0	18.3	14.6	20
March ..	1.44	4	63.3	84.9	85.4	49.6	20.5	19.6	24
Total ..	77.22	173							

On the whole the rainfall for the year was better distributed than is usually the case.

Up to the end of March the dry weather did not seem unduly severe as although February equalled the previous year in intensity of drought January was a little less hot than usual and the rain early in March again had a marked cooling effect.

The total rainfall for the year was 2 inches in excess of that of the previous year and was thus approximately normal.

In conclusion I would like to tender my thanks to Mr. K. B. W. Jones for his assistance in compiling this Report.

W. S. SHAW,
Tea Scientific Officer, U.P.A.S.I.

COFFEE SCIENTIFIC DEPARTMENT.
ADMINISTRATION REPORT FOR 1930-1931
OF

W. WILSON MAYNE, B.Sc.,
Coffee Scientific Officer, U.P.A.S.I.

I have the honour to present the administration report of the Coffee Scientific Officer for the year ending March 31st, 1931, dealing with the work in progress in connection with coffee problems.

As in the previous year, the work has been centred at the Mysore Government Coffee Experimental Station, Balehonnur, under the direction of Dr. L. C. Coleman. Work in co-operation with the officers at the station has been continued and extended in connection with breeding, spraying and miscellaneous problems.

A short tour was made in the Shevaroyis in connection with spraying problems during the month of July.

The report comprises as usual a short account of touring work, scientific investigations in progress and general notes on coffee problems which have been raised during the year.

Touring.

At the request of the Shevaroy Planters' Association, a visit of a week's duration was paid to the district to study and advise on spraying problems. The results of the tour, which were of value not only in relation to the special problems of the Shevaroyis but also in emphasizing several features in the distribution of Leaf Diseases not previously realized, were embodied in a report submitted through Dr. Coleman.

The main results and conclusions are here presented in summary.

There can be no possible doubt that spraying in the Shevaroyis is of great value, both in increasing yields and in enabling the bearing of good crops in years of unfavourable seasonal conditions. The latter advantage is well borne out in the 1930-31 crop. Showers were experienced in February, which forced a partial blossom on unsprayed areas at that time. The set was poor and crops on such areas were generally low. On the sprayed areas, the early showers did not result in a blossom, the buds remaining dormant until April, when a satisfactory blossom and set were obtained. The sprayed areas alone were bearing a good crop at the time of the tour.

The main problem is the question of the most favourable time for spraying, concerning which there are considerable divergences of opinion in the district. It seemed that these divergences were the

result of differences in the conditions on different estates and one of the major differences appeared to be exposure to wind. The question of the importance of wind in determining the rate of increase of Leaf Disease has been dealt with in a separate report shortly to be published, but it may be said here that it appears from detailed observations that, given suitable moisture conditions, a sheltered area will develop an intensive attack of the disease more rapidly than a wind swept one. In the Shevaroyis, the support for later spraying, i.e., August application, comes from estates where the coffee is exposed to wind, and that for earlier spraying, i.e., June application, from sheltered areas. The problem is further complicated by the delay of the flush in the more exposed areas and this may be the main reason for the better results with the later spray in such areas. The two co-operate for, apart from spraying, the reports of the behaviour of the disease showed similar differences in the time of heavy attack. In the sheltered area, the disease is usually noted in July while in the exposed places there is a delay until September.

On the question of materials, opinion is divided, the majority being in favour of Burgundy mixture with Fish Oil Resin Soap as an adhesive. The alternative in use to a much smaller extent is Bordeaux with Resin Soda adhesive. There does not seem to be any noticeable difference in efficiency, though there were no strictly comparable areas seen during the visit. The Burgundy has the advantage of requiring a material—Soda Ash—of more constant composition than the lime marketed in this country. Moreover, the quantity required in the mixture is less than in the case of the lime in Bordeaux. There have been no cases of burning due to excess of the constituents as far as I was able to hear. The subject of adhesives will be dealt with later in the report.

All three of the main types of sprayers were seen in use. Drake and Fletcher's D.S.P. "Headland" sprayer seems the most satisfactory where road facilities are reasonably good. In other areas, the "Four Oaks" battery sprayer has been found useful. The small Knapsack pressure sprayers are also sometimes used where the D.S.P. cannot be employed but the falling off of pressure is an undesirable feature.

There seemed an opportunity for improvement in the organization of work with the D.S.P. It appeared to be the custom to employ only a small number of barrels,—a mixing barrel, a water barrel and a spraying barrel, the two former being moved when necessary while the last lot of mixture is being sprayed. In some cases, the mixing is done at a central mixing station and the mixture is carried to the spraying barrel. In Mysore, it is usual to increase the number of barrels and to have them spaced out along the road in pairs, one for water and one for the mixture. The water barrels are filled up ahead of the actual sprayers, while the mixture is prepared as required just ahead of the sprayers. Thus, when a move is necessary, the mixture is ready for the immediate recommencement of work. There seems to be less waste of time in making changes

of position by this method, while the water carrying coolies are in a large measure working independently of the sprayers. Some economy in water carrying labour might perhaps be effected in this way.

Costs appear to be slightly cheaper than in Mysore, working out at Rs. 17—20 per acre per application, (i.e., for full strength spraying). The number of trees per acre is generally less than in Mysore and at the time of my visit, male coolies were paid slightly less per day.

The spray cover was everywhere thorough and generally even, though less so where the knapsack sprayer was in use. On the whole, one spray per year appears to be sufficient to afford a satisfactory control of the disease.

Investigations.

Coffee Die Back Progress Report.—Work on the Die Back of coffee has been continued during the year. The importance of environmental conditions and the state of health of the trees has been further emphasized by the observations, but the part played by the fungus which is constantly isolated from diseased shoots is still very obscure.

Of the conditions predisposing trees to the attack of Die Back, defoliation by Leaf Disease takes primary place. It seems that heavy cropping, poor soil and light shade exert their influence through their effects in encouraging leaf fall. As far as the type of Die Back under consideration is concerned, leaf fall appears to be a necessary preliminary. With one exception, cases of dying back of shoots bearing several pairs of leaves have proved to be due to distinct causes, e.g., a branch disease of little importance so far uninvestigated, sundry borers or mechanical damage.

The exception mentioned is a special case in which a shoot bearing several leaves but which lost the apical pair or couple of pairs developed a Die Back at the leafless tip.

In order to study more closely the relationship between leaf fall and Die Back, a series of observations was started in August 1930 on young shoots which had been defoliated by Leaf Disease but which were otherwise green and healthy. One hundred such shoots were labelled on August 14th and their future history followed by observations on September 8th, October 13th and November 24th. By September 8th, 39 had died from Die Back, 2 showed the first signs of the disease, while the remainder were still healthy. On the 13th October, a further 8 were dead and blackened, including the two which showed the first signs of the disease at the previous observation. One more had died by 24th November. The remaining 52 were healthy and had formed one or two more pairs of leaves. This shows that leaflessness in itself is not the cause of the disease.

In connection with the work on Leaf Disease, the results of which are reported elsewhere, the history of a number of young shoots was followed over a much longer period. Out of 167 young shoots in these observations, 112 were dead from Die Back in September 1930, and out of these 112, 99 were either leafless before Die Back symptoms were visible or, on the last date of examination before such symptoms were seen, bore only more or less heavily diseased leaves. The remaining 13 bore a pair of healthy but immature leaves at the tip. In no case of a shoot succumbing to Die Back were there any mature healthy leaves. Of the 55 which survived, 7 were at one stage of their life during the danger period completely devoid of leaf, while many of the remainder bore only diseased leaves at one time or another during the same period.

Thus it appears that Die Back is associated with defoliation but is not a necessary consequence of such a state.

It was next considered possible that deficiency in available food reserves might be the predisposing cause, and to study this, numerous sections of normal, defoliated and Die Back attacked twigs were cut and tested for starch content. Records were kept of the density of starch grains in the various tissues of the shoots. The number of shoots examined was not sufficient for any definite conclusion to be arrived at, but the indications are that there is a marked deficiency of starch in shoots showing incipient Die Back and in defoliated healthy shoots, as compared with the amount in the leafy shoots. No sharp distinction can be drawn, however, between the amounts found in healthy leafless shoots and incipient Die Back shoots on the number examined. This work will be continued when material again becomes available.

In the laboratory, fresh isolations from diseased shoots have been carried out and, as in the previous year, a *Colletotrichum* (*Glaucosporium*) was regularly recovered.

Attempts at inoculation were made during the year on young potted plants which had been kept in the dark to exhaust the food reserves. Unfortunately, the time required to exhaust the reserves was considerable and a large number of plants were destroyed by rats. Two small series of inoculations were set up with the remainder from two separate series of pots. In one, no result was obtained, while in the other, one of the inoculated plants developed a diseased area on one of the minute tip leaves, from which the *Colletotrichum* was recovered. The fungus proceeded no further, however, and the typical symptoms did not appear. Further work along these lines is planned for the future.

In the meantime, as far as practical measures are concerned, Die Back can be largely controlled by controlling Leaf Disease as was pointed out in the report for 1929-30. It may be remarked that the area which was examined for Die Back in 1929 (Report of the Coffee Scientific Officer 1929-30, p. 13) was sprayed twice, before and after the monsoon in 1930 and in spite of the fact that the year was a

bad one for both Leaf Disease and Monsoon Die Back, the area was almost free of the disease. Efficient protection against Leaf Disease by spraying must therefore take first place in the control measures against Die Back. This applies especially to monsoon Die Back but it seems that hot weather Die Back can be similarly controlled for though it shows up at a period when Leaf Disease is not active, the conditions that lay the plants open to attack are those of a late Leaf Disease attack, i.e., in December. It was noted during the year that leafless or almost leafless branches with considerable quantities of bud remained apparently healthy through the early part of the year and then developed Die Back at the time of the first showers.

Attention to cultural practices which keep the trees in good health will help in the control of Die Back in so far as they enable trees to withstand defoliation. While it does not seem that such practices can produce a resistance to Leaf Disease attack, they can enable the trees to withstand the effects of such attacks. Healthy coffee requires a more severe intensity of Leaf Disease to cause leaf fall than unhealthy coffee. It must be emphasized that in areas where Leaf Disease and Die Back are severe, cultural practices alone are insufficient to give adequate control.

Root Diseases. Progress Report.—Attention to root diseases has been confined to the commencement of a detailed study of Brown Root Disease usually attributed to the action of *Fomes Linaensis* Murr. This is by far the most common cause of the death of coffee plants by root disease and it was felt that it would repay close investigation.

The general characters of the disease have been frequently described in publications dealing with the diseases of woody crops in the tropics of Asia and Africa. The chief feature is the development of a thick crust of adherent earth and small stones around the woody roots. On the root surface and in pockets in the earth crust are found quantities of fungus mycelium which may be in the form of tawny brown woolly hyphae or black or brown crusts which may be either smooth or powdery. The wood of the roots is very brittle as a result of the attack and they readily snap off in the ground when the diseased plant is removed. In the interior of the root, dark brown to black, wavy lines are to be seen. The structure of these lines has not been clearly worked out but they appear to consist of tangled fungus hyphae together with a brown pigment.

The first work was directed to obtain the fungus in culture. Isolations were made from the diseased wood and from the cortical region of diseased roots and a fungus growth was obtained very constantly from the roots of both diseased tea and coffee plants.

In the absence of any form of reproductive organs both in the cultures and on the diseased plants, the task of deciding whether the fungus obtained was in fact the same as that responsible for the tawny brown mycelium and the black crusts on the diseased roots was somewhat difficult.

The growth in culture on Potato Dextrose Agar was at first sparse and superficial with very small quantities of aerial mycelium. The hyphae were colourless and showed no striking features in the early stages. As the cultures got older, aerial mycelium became more profuse and at times filled the tubes and at the same time the older growth began to turn brown. Later, the aerial growth became reduced and the surface of the culture presented, first a brownish powdery appearance and then black crusts were formed.

While the cultures showed many features reminiscent of the growth found on the roots, it was only on microscopic examination of hyphae from diseased roots and those from cultures that satisfactory evidence of identity was obtained. The dark brown to black crusts on the root were found to contain fungus hyphae of a peculiar form, which gave the surface a powdery appearance. These hyphae were dark brown in colour and bore numerous very short branches developing in clumps very close together, each branch being swollen and rounded at the tip. Identical hyphae were found in the cultures.

The pure cultures of the fungus having been obtained, a number of blocks of coffee wood were sterilized and inoculated with portions of actively growing mycelium. The fungus grew rapidly on the blocks and enveloped the whole in mycelium which was first colourless and later turned tawny brown and finally developed black crusts similar to those found on diseased roots.

Further examination of these blocks has not been made. They are being kept to see if they will develop fruit bodies. It is further proposed to use such blocks for infection experiments on living trees during the coming year.

Large numbers of plants have been examined in the field and cases of the disease have been found on *Coffea arabica*, *C. robusta*, Tea, *Trichosia candida*, *Erythrina* and *Grevillea*. The fungus has also been noted on a number of jungle stumps so far unidentified. As was mentioned in the last report, the disease is almost always associated with rotting stumps. In fact, apart from the cases mentioned last year from the Shevaroyis, the association with rotting stumps has always been found to occur.

In order to study the relationship to stumps more clearly, a young Robusta plant which had succumbed to the disease in an area at the Experiment Station was washed out of the soil with fine jets of water under pressure. A trench was dug three or four feet away from the tree and the soil gradually washed down into it, from which it was removed. As far as possible, the roots were kept intact. The plant was eventually extracted with its root system almost complete.

The signs of the disease were found from the collar to a depth of nine inches on the tap root, while all the lateral roots arising in this region were diseased for a distance up to four inches from their point of origin. There were, however, two exceptions to this; two of the roots were diseased for much greater distances from the tap

root and in each case it was found that these two roots were in direct contact with the rotting roots of a neighbouring stump.

The contact of the larger of these which was the most readily examined was at a depth of about twelve inches from the surface and about twenty inches horizontally from the tap root. When first exposed, this diseased root was firmly cemented to the stump root.

The roots beyond the diseased portions were apparently quite healthy, the fine feeding rootlets were white and turgid and the woody roots showed no signs of disease. A description of the extent and type of the root system will be given below.

It is proposed to extend such work to other diseased trees in an effort to obtain further knowledge of the mode of spread and of the limits of depth to which the fungus penetrates.

A start was made on testing soil acidities in areas where the disease is widespread. So far only a few results have been obtained and they do not afford sufficient data for discussion.

As far as present knowledge goes, the only sure way of dealing with root disease is the eradication of rotting timber from the soil. This is very expensive and can rarely be done over a large estate, but wherever the disease appears, it is very desirable that the patches infected should be thoroughly cleared of centres of infection.

Of other root diseases, mention may be made of *Rosellinia* which is probably the second most common source of root disease. This has been found on coffee and *Grevillea* at the Experiment Station as well as on a number of jungle tree stumps. The disease is easy to distinguish by the greyish black woolly mycelium visible on the surface of the diseased roots. Very commonly, the black pellet-like fructifications can be found in large numbers on neighbouring stumps. The ones so far examined place the fungus in the species *Rosellinia arcuata*.

Methods of treatment would follow the same lines as for *Fomes* but special care must be taken to destroy all mulch and small twigs in a diseased area as this fungus seems to spread more rapidly than the *Fomes*, the extension of which is usually by contact of healthy roots with diseased timber.

Leaf Disease. Progress Report:—Field observations on Leaf Disease carried out during 1929-30 were continued throughout the year under review. A report on the first year's work was published as Bulletin No. 4 of the Mysore Coffee Experiment Station under the title "Seasonal Periodicity of Coffee Leaf Disease." A further report on the second year's work, confirming and extending the results of the first year, is in preparation.

In addition, work on Leaf Disease has been carried out in the laboratory on spore germination and infection. The results are very incomplete and the experiments are hardly out of the preliminary stage.

I. *Spore Germination*.—As reported last year, germination of the uredospores is not very regular or plentiful on glass slides, but better results have attended some of the experiments carried out during the present year. With the more complete standardization of conditions, it may be possible to use this method more extensively than was at first expected. Preliminary experiments show that the acidity of the water used, the humidity of the surrounding air and the illumination are factors of extreme importance in determining the amount of germination. It is highly probable, though no experiments have yet been made on this point, that the age of the pustules from which the spores are obtained and the climatic conditions at the time of collection are also of importance. These will be considered in future studies.

The problem of spore germination was also attacked along a different line, in the hope that more regular results would be obtained. Spores were sown in drops of neutral distilled water on the undersides of detached coffee leaves. These coffee leaves were supported on dishes containing distilled water and the whole covered by small bell jars lined with moist filter paper.

Experiments on these lines were conducted in the daylight and in the dark, with short periods of illumination. In some cases, the drops of water containing spores were allowed to dry by raising the bell jars slightly. After twenty-four hours (in some cases forty-eight hours), the leaf surface covered by the drop was cut off as a thin section and the number of germinated spores counted. Records were also kept of the type of germination—whether the germ tube was branched or unbranched and whether any penetration of the leaf had occurred. It is too early to discuss the results but it may be said that so far they agree with those of the previous worker who used this method.

Work will be continued along these lines during the coming year.

II. *Inoculation*.—Some experiments were made in an endeavour to reproduce the disease in the laboratory on young potted plants. The experiments were all failures. The most likely source of this failure lies in the water used for the spore suspension, which was found to be highly alkaline. It may be also that the spores are in some way injured by being made into a suspension with water. In future experiments it is proposed to dust spores on to the moistened leaves instead of spraying leaves with a spore suspension.

Experiments were started in the laboratory along the same lines as those used for studying spore germination except that the leaves were left with their petioles in water for periods up to three weeks to see if disease pustules would develop. None of these preliminary experiments gave a positive result. This work will also be continued in the future.

III. *Age of the Leaf and Infection*.—In the course of one series of observations carried out during the year, a large mass of

data was collected from which it will be possible to obtain an idea of the minimum age at which leaves become infected. These data have not so far been analysed with respect to this question but the work will be taken up during the coming year.

Flower and Fruit Studies, Progress Report.—Studies have been commenced on various aspects of flower and fruit production, crop loss and setting.

I. *Pollen Germination.*—In order to gain some knowledge of the conditions affecting the viability of pollen and the possibilities of storing it for longer or shorter periods, work was commenced at the blossom time of 1930. The subject was taken up in view of its great importance in connection with the breeding work in progress at the Experiment Station. Investigations were continued at the blossom time of 1931.

The first year's studies were purely preliminary, to obtain an idea of the most suitable fluid for germinating the pollen grains as regularly and as normally as possible and to examine the behaviour of pollen on keeping it in sealed tubes in dry and in moist air.

Like the pollen of many other plants, coffee pollen will germinate in water and in cane sugar solutions. Tests were carried out with distilled water and cane sugar solutions ranging in concentration from five per cent to fifty per cent. The best results were obtained in a twenty per cent cane sugar solution and this was used in all the later work.

The results so far obtained with fresh pollen show that healthy pollen from Kent's Arabica flowers will give between forty and fifty per cent germination in artificial culture. The amount of germination is increased somewhat by the addition of small fragments of stigmas, provided that the stigmas do not come from the same flowers as the pollen.

It was found that flowers brought out early in the year, *e.g.*, Middle of March, gave much less viable pollen than flowers that blossomed later. The following data illustrate this point:—

Date.	Mar. 14	Mar. 16	Mar. 17	Mar. 18	Mar. 19	Mar. 23	Mar. 24	Mar. 31
Percentage germination	16.9	7.3	12.6	25.0	21.8	50.5	53.5	42.8

The last date was the date of the general blossom, the pollen used on the earlier dates being from plants forced out by watering. The pollen was collected at the same time of day on each date and the tests were all carried out in the same way. Not less than two and

usually four separate hanging drops were examined in each experiment. Further work on this point is planned for the future. Tests of pollen viability of blossom brought out by February rains would be of some interest in this connection.

The experiments with stored pollen gave somewhat conflicting results but it was found that healthy pollen preserved in a perfectly dry atmosphere could be kept for at least four days without marked loss of viability. Under ordinary air conditions, viability of the pollen is rapidly lost. Further work on the preservation of pollen is planned for the future in which it is hoped to make tests on the fertilizing power, as distinct from the germinating power of fresh and stored pollen.

The discovery at the end of the year that a number of the hybrid plants in the selection plots at the Station produce little or no pollen renders it necessary to make a survey of the selected plants for pollen formation and to test the viability of such pollen as is produced by them at the next blossom period.

II. *Fertilization*.—A commencement was made at the end of year (1931 blossom) to study the time required for fertilization to be effected. At the blossom period, flowers were removed at regular intervals, from the time of opening up to seven days afterwards. The ovaries of these flowers were fixed in weak Flemming's solution and embedded in paraffin. These will be sectioned when opportunity offers and the sections examined to trace the process of fertilization. Young fruit initials which were turning yellow and falling were similarly fixed and embedded to see if the failure is connected with lack of fertilization.

III. *Crop Losses during Development*.—In connection with a detailed series of observations on crop bearing branches carried out to gain information about Leaf Disease and leaf fall, records were kept of the amount of flower bud formed and the times of loss of young fruit.

The observations were in two sets, one set of sixty crop bearing branches, twenty from each of three plots receiving a post monsoon spray and a second set of sixty from three plots which were unsprayed. The crop in the area was poor but blossom showers were favourable both as to time and amount. The results are summarized below:—

		<i>Sprayed.</i>	<i>Unsprayed.</i>
Healthy Bud. 31st March 1930	..	958	934
Loss After Blossom	..	292	515
May-June	..	108	60
September-October	..	135	68
Unswollen Fruit	..	108	74
Total Loss	..	643	717

It can be seen that by far the greater part of the loss in these observations occurs in the early stages. This early loss takes place before the fruits have begun to swell and constitute the "shanking" which can always be seen shortly after the blossom period. With this may be associated the loss due to the failure of swelling. These young fruits may remain on the tree throughout the season and in the first few weeks cannot be distinguished from the future fruit until the healthy ones begin to swell.

A second form of loss made itself apparent at the end of May and early June. This affected young fruits which had started to swell and had reached a length of about a quarter of an inch. It was first noted that some fruits seemed to be lagging behind the rest and then large numbers of such small fruits were found on the ground. The outward signs, apart from the difference in size, were very few. Sometimes young fruits about to fall could be recognized by a blackening of the stalk but this was not always so. Small fruits could often be picked up from the ground in which there was no external sign of anything wrong. On cutting open such fruits, it was found that one or both the young beans were black and rotting, while the surrounding tissue remained green. The loss in those observations amounted to a little less than twenty per cent of the healthy fruit remaining on the branches on 26th May. A report received from one estate in the Bababudans gave a much higher estimate of the loss of crop due to this form of failure. Experiments to ascertain whether the phenomena observed were due to fungi or bacteria gave negative results, but they were not sufficient in number to draw any definite conclusions. It is hoped to investigate this point more fully next year.

The later loss of crop was due almost entirely to Die Back following a severe attack of Leaf Disease during the monsoon. Some observations made in November in the plots from which these branches were selected showed that between 65 and 75 per cent of the crop bearing branches had begun to die back at the tips before the crop was ripe. This Die Back nearly always resulted in the drying off and falling of the fruits nearest the tips. A discussion of the relation of this Die Back to Leaf Disease has been given elsewhere. Preparations have been made for following the course of crop losses during the year on a larger scale during 1934. The first count at the end of the present administrative year involved nearly ten thousand buds. Records are being kept, at least during the pre-monsoon period, at weekly intervals. This new series is being carried out in twice sprayed coffee under as even shade conditions as possible and the records are arranged so that the results can be treated statistically. It is hoped that losses due to Leaf Disease and Die Back will be eliminated by the spraying and attention can be concentrated on other causes.

No doubt a great deal of the loss in the early stages is inevitable but the peculiar loss in late May and early June in 1930 deserves closer investigation, especially in view of the recent work on coffee crop loss in East Africa.

If observations of this type can be carried out for a number of years, a good deal of light should be thrown on the effect of climatic conditions on crop setting.

The fruits which ripen in the series just commenced will also be examined for "jelloo" or empty berries and on the basis of data so obtained, it may be possible to institute work which will throw some light on this obscure condition.

Coffee Root Systems.—Our knowledge of the root system of coffee is very slight, being limited almost entirely to scattered observations made during digging work or in extracting trees which have died from one cause or another. This is primarily due to the inaccessibility of the root system for the purposes of study and yet a knowledge of its extent both laterally and vertically, its mode of growth and its variation under different conditions cannot but throw light on problems of cultivation, manuring, spacing and the selection of shade.

A commencement was made during the year on a study of the distribution of the root system in the soil. The first attempt was undertaken primarily in connection with root disease but on unearthing the plant the root system was so complete that a comprehensive series of measurements was made as a preliminary to further work with healthy plants.

The tree was Robusta of about four years old which had been topped at two and a half feet and bore four pairs of primaries with a spread of about six feet from tip to tip. The root system was extracted in its entirety by washing the soil away with fine jets of water from a trench dug at some distance from the plant.

A neighbouring healthy Arabica plant of five years old was similarly treated and measurements taken. A brief summary of the data obtained is given in the table so that the differences can be appreciated.

	Robusta.	Arabica.
Circumference at collar	.. 6 ins.	4½ ins.
Tap root	.. 3 ft. 5 ins.	2 ft. 2 ins.
1st Lateral, Depth	.. 3 ins.	4½ ins.
No. of woody laterals	.. 66	57
Longest laterals	.. 6 ft. 2 ins.	5 ft. 6 ins.
Average of main laterals	.. 5 ft. 3 ins.	4 ft. 6 ins.
Greatest concentration of laterals on tap root	.. 6 ins.—9 ins.	10½ ins.—13½ ins.

It may be noted that the lengths of the roots given are on the low side as it was rarely possible to follow the large roots to their extreme tips. The tap roots in both cases were probably at least six inches longer.

It is impossible at this early stage to discuss all the data in detail but two points stand out from these observations and measurements. One is the much greater development of the Robusta root system

when compared with that of the Arabica. The differences are really much more marked than are shown by the figures given in the table. Thus in the region between six inches and one foot from the collar in the Robusta plant only six out of twenty-six laterals are less than three feet long, while in the same region in the Arabica twenty-two out of thirty-two fall into this category. Further, no records were made in these observations of the amount of branching, which was much more profuse in the Robusta.

The second point is that on the average, the main lateral roots of the Robusta originated nearer the surface than those of the Arabica and it appeared in the course of washing out that they grew in a more horizontal direction in the former. Thus, on dividing up the tap root into three inch intervals and recording the number of laterals in each division, the following figures are obtained:—

		Collar to 1st lateral	No. of laterals 3 inches below first.	No. of laterals 6 inches below first	No. of laterals 9 inches below first	No. of laterals 12 inches below first	No. of laterals 15 inches below first
Robusta	..	3 inches	13	19	7	7	9
Arabica	..	4½ inches	15	15	17	7	3

The Arabica has no woody laterals after eighteen inches, while the Robusta has eleven such roots between eighteen inches and three feet six inches though none of them is very large or profusely branched. It can be seen that the greatest density of laterals is somewhat lower in the Arabica than in the Robusta.

The extent of the root systems of both types shows that the root system of neighbouring trees with the usual planting distances employed in this country is inextricably mingled and that below a depth of about 6 inches the soil must be completely occupied by the coffee roots.

These studies will be followed up with the washing out of more trees of both types under varied conditions of soil and cultivation.

Spraying Materials and their Effects on Leaf Fall.—An attempt was made to obtain data from leaf counts made in areas receiving different types of spray mixtures which would throw light on their relative effectiveness in controlling Leaf Disease and leaf fall.

Observations were started at the end of September 1930, when the disease was very widespread in unsprayed areas. It was found possible to utilize crop bearing branches of fourteen to eighteen internodes and to find sufficient numbers in the plots to give data for

statistical analysis. In each plot twenty crop bearing branches of the required age together with their associated shoots were examined and the total number of leaves counted for each one of the 20. It was found that twenty branches of the type used, bore on the average one hundred and fifteen side shoots. The variation in this figure was surprisingly small. From the number of leaves and the number of growing shoots, a figure for the number of leaves per growing shoot was obtained for each branch unit. The Mean and the Standard Deviation were calculated for each treatment and from them, the Standard Error.

The data were collected for thirty different plots, representing ten different treatments. The results were as follows:—

Check	..	..	..	2.40 ± .13
Casein Bordeaux	..	..	..	5.90 ± .18
Resin Soda Bordeaux	..	..	..	5.50 ± .16
Linseed Oil Bordeaux	10 ozs.	..	..	6.35 ± .21
Do.	do.	20 ozs.	..	6.09 ± .19
Do.	do.	40 ozs.	..	6.28 ± .25
Alum Bordeaux	..	..	..	5.38 ± .24
Resin Soda Burgundy	..	..	..	4.87 ± .18
Fish Oil Resin Soap Burgundy	..	..	..	5.57 ± .13
Three per cent Solbar	..	..	..	3.10 ± .11

For further comparison, two similar sets of observations were made at Guntanaik Estate on an area receiving, in one part, Full Strength Casein Bordeaux and in the other Half Strength mixture with the same adhesive. The results were as follows:—

.5 per cent Casein Bordeaux	..	..	5.42 ± .20
1.0 Do. do.	..	..	5.81 ± .14

In interpreting the results of these observations, several difficulties present themselves due to the fact that there are at least two sources of error which are not common to all the plots. These are:—

(1) The varying efficiency of the coolies carrying out the spraying on the different plots. (2) The possibilities of rain falling when some of the plots are still wet from the spray, while others done at some other time may have dried and not be so susceptible to washing.

In view of this, several other series of observations will be necessary before the differences between the plots can be regarded as significant even where the present differences may be greater than twice the Standard Error, the usual test of significance.

However, in the case of Solbar and the Check plots the differences are quite large enough to be considered as definite. With a little less assurance, the data for Resin Soda Burgundy may be considered as fairly conclusive, especially as the reports from the Shevaroyis for this mixture were unfavourable. The other data are not definite, though the figures for Linseed Oil are promising. This adhesive in the ten ounce strength is certainly worth trial, if only because of the ease with which it can be employed. It is simply poured into the mixture and thoroughly stirred.

From the results of the spraying at Guntanaik, it can be seen that there is very little difference in the results from spraying with half and full strength. This, together with evidence from other areas receiving a half strength spray, suggests that the half strength mixture is a sufficient protection. This is still further supported by the fact that the year in question was a very bad one for early Leaf Disease in the district where these observations were made. Conditions were eminently favourable for revealing weaknesses in spraying materials, methods and times.

These observations will be repeated in the coming year and it is hoped that a second set of figures will enhance the value of these observations very considerably.

Green Bug.—In the Report of the Coffee Scientific Officer for 1929-30, mention was made of some experiments started to try the effects of providing young coffee plants with sticky bands to keep off ants and to see whether sufficient control of the ants could be obtained in this way to effect a reduction in the Green Bug.

In a clearing of coffee about eighteen months from planting at Kolar Estate, North Mysore, 493 plants were provided with bands of Grease proof paper covered with "Ostico" on February 19th, 1930. At the time of application, these plants were classified for the severity of Bug infestation and a further 463 plants left without bands were similarly examined. A second examination was made in May 1930 with the results given in the table below:—

	February.		May.	
	Banded	Unbanded	Banded	Unbanded
	Per cent.	Per cent.	Per cent.	Per cent.
Free or very slight attack.	58.1	59.6	57.8	61.9
Slight attack ..	30.6	28.4	22.7	17.8
Severe attack ..	10.1	10.3	12.3	14.6
Very severe attack ..	1.2	1.7	7.2	5.7

The results unfortunately give very little information since the increase in the Bug attack during the period was almost negligible.

It may be remarked that the banding material is efficient in trapping ants, provided it is not earth plastered or very wet. In the presence of alternative routes up the plant, i.e., weeds, fallen branches, low hanging shade, etc., the banding material is obviously ineffective as the ants rapidly learn to profit by them. At the May observation, it was found that about ten per cent of the banded plants showed such alternative routes across which ants were moving. The remainder

were free of ants and dead ants were found on about twenty-five per cent of the bands. The material was still sticky after three months but during rainy weather, the surface of the Ostico loses its stickiness and is then also ineffective.

Costs.—An approximate calculation of costs gave the following figures:—

	Rs.	A.	P.
Ostico (16½ lbs. at Re. 1/8, plants 1 in. diam.) ..	24	12	0
Paper 180 yards at Rs. 3 per roll of 200 yds. ..	2	12	0
Twine about 800 yards ..	0	12	0
Labour 15 coolies at 6 annas ..	4	14	0
Total per acre ..	33	2	0

In addition, there would be a slight addition of commissions and also the cost of removing the bands, for it was found that the gunny twine used was preserved by the Ostico and the plants were liable to be damaged if the bands were left on for a long time.

In view of the cost alone, it does not seem that this offers a very promising means of controlling ants and Green Bug. In any case, it could only constitute a partial control.

In a recent bulletin of the Kenya Department of Agriculture (H. C. James, The Repellent Banding to Control the Ants Attending the Common Coffee Mealy Bug), a detailed account is given of experiments along similar lines on old coffee. The figures given for costs of application are very high and quite out of the question for South Indian conditions. In addition, the point is made that banding alone without more direct methods (in this case, Biological control) is not likely to be of great service.

It is possible that if a much cheaper and equally repellent material was available, banding might be of some limited use on young clearings but it could never be extended to old coffee under South Indian conditions.

Cockchafer.—In the absence of this pest anywhere near the Experiment Station, practically no work has been done up-to-date. Some specimens of the grubs were received and placed in pots with young coffee plants but up-to-date no damage has apparently been done to the plants and no adults obtained. These will be kept under observation.

Arrangements are being made for a visit to an infested area for an extended period.

General Notes.

Manuring.—Questions of the manuring of coffee form a considerable part of the enquiries received. Recommendations have been made invariably on the basis of the work of the Mysore Agricultural Chemist at the Station and elsewhere. I owe him my thanks for his assistance on many occasions.

The main features of the suggestions are that as far as a quick return for expenditure goes, artificial concentrated manures are to be preferred to organic and other slow acting manures. This is especially the case in respect to sources of Phosphate.

The ratio and amounts of the various plant foods in a complete mixture have been discussed in Dr. B. Narasimha Iyengar's bulletin, "The Improvement of the Coffee Industry in Mysore," published by the Mysore Agricultural Department. These data have been used in suggesting mixtures.

Spraying.—Many enquiries have been received with regard to spraying materials, machinery and time of application. These have all been dealt with in detail on the basis of the experience gained at the Station and on estates where spraying has been carried out for a long period.

A point that is often overlooked in the preparation of the mixture is that the method of mixing the components is a matter of considerable importance. In the case of Bordeaux, the addition of the Copper Sulphate solution to the Lime solution is much to be preferred to adding the Lime to the Copper Sulphate. It has been found both in the laboratories of the Mysore Department of Agriculture and elsewhere that pouring a weak Copper Sulphate solution into a strong Lime solution is the best method of preparing the mixture. This presents very considerable difficulties on an estate scale so that a compromise is necessary. This is the addition of a strong Copper Sulphate solution to a weak solution of Lime and this method should always be employed. This is the usual method in use on estates but not without exceptions.

In the preparation of the half strength mixture, the actual quantities per barrel should be measured out. The product obtained by diluting a full strength mixture with water is very considerably inferior in the suspension of the particles of fungicide.

A ready mixed Burgundy powder tested was found very inferior to the home made mixture, as far as the fineness of the particles, on which a good deal of the fungicidal power depends, was concerned.

Bordeaux and Burgundy mixtures are not simple cases of chemical action between Copper Sulphate and Lime or Soda, but complex reactions involving the production of a wide series of basic Copper Sulphates formed in varying proportions under different physical conditions. Matters are further complicated by the fact that the form of the precipitate produced by the interaction, whether fine or coarse, also depends on the physical conditions of preparation. It is this last factor which is very important in producing a spray cover of high efficiency.

Fungus Diseases.—In addition to the diseases already mentioned in connection with investigations, a number of cases of minor injury by fungi have been reported, and, where necessary, suggestions have been made for treatment.

Nursery Collar Rot.—This disease appeared in one of the nursery beds at the Station in the early part of the monsoon. Isolations made from the diseased tissues gave a *Rhizoctonia*. The disease seems connected with over-crowding and excessive moisture and only under such circumstances does the fungus become virulent. Thinning out and keeping the beds drained will serve to prevent the appearance of this disease. The application of a Bordeaux spray will prevent further spread if the disease has appeared.

Cercospora Leaf Disease.—A spotting of coffee leaves associated with *Cercospora* has been met with fairly frequently, especially in young plants in the nursery. It never does much damage but if necessary can be controlled by Bordeaux spraying. Like most fungus diseases, it begins to show up with the first rains.

Hemileia vastatrix.—In addition to the widespread occurrence of Leaf Disease on Arabica Coffee, a number of reports and specimens of the fungus on Robusta have been received. Although the majority of Robusta plants appear to be highly resistant to Leaf Disease, there are usually a number of susceptible plants in most Robusta plantings. If these can be picked out in the first year or so, it seems to me that it would be advisable to eliminate them and replace them by resistant plants. It is hoped to investigate the question of resistance to Leaf Disease in future work. It has been suggested that Robusta may lose its power of resistance and while this is purely speculative, it seems advisable to collect all records of the disease in Robusta areas so that a watch can be kept for any signs of spread.

By the kindness of Mr. Narasimhan, Mycologist, Mysore Agricultural Department, some specimens of *Gordenia gummiifera* were received from Sagar in the Shimoga District which bore orange yellow pustules. On inspection, the spores were identical in size and shape with those of *Hemileia vastatrix*. It is hoped to test whether this fungus is identical with that occurring on Coffee in future work.

Root Disease of Tephrosia candida.—Specimens of a root disease which differed in several particulars from those commonly found on woody plants in estates were received during the year. The characteristic feature was the presence of a collar of brown spongy tissue at the soil level, which bore large numbers of basidiospores on its surface. Complete identification was not obtained, though the fructification was of a *Corticium* type. The control measures suggested were the uprooting of all diseased plants.

Leaf Disease of Erythrina.—A considerable amount of Leaf fall was noted on Dadaps during the monsoon. The leaves bore small brown to purple spots and when severely attacked, the leaves turned yellow and fell. A fungus with dark four to five celled spores was found in the tissues. These spores were borne in receptacles (pycnidia) and the fungus therefore belongs to the form genus *Hendersonia*. The disease disappeared at the end of the monsoon and the trees put out fresh leaf. No control measures seemed called for.

Insect Pests.—Reports during the year have indicated that both the ordinary white borer (*Xylotreches quadripes*) and the shot hole borer (*Xyleborus* spp.) of Robusta have been especially severe. No work has been done on these pests and little can be added to what has been written in the past. Extensive work on the former pest has been reported by Dr. Kunhi Kannan, the Mysore Government Entomologist, but so far there seems nothing new which can be recommended for use on a large scale. The shot hole borer was exceptionally severe after the monsoon of 1930, and much damage was done to young plants in which the primaries were attacked and the suckers left to raise the height of the trees. A few cases of infection of Arabica trees standing near Robusta areas were seen. Observations suggest that shade is an important factor, heavy shade encouraging the spread of the pest, and consequently it is advisable to keep the shade as light as possible in Robusta areas.

Of minor importance are cutworms, for which treatments were given in the report for 1929-30, slugs gnawing young fruit during the monsoon and red borer (*Zenusa coffea*) in young plants and in small branches of older plants.

A case of a seed bed of Robusta in which seeds failed to germinate revealed the presence of mites which had invaded the seed and destroyed the embryo. In some cases, the seed was quite intact and apparently healthy except for a minute puncture at the embryo end and the absence of the embryo. Mites were constantly found in the cavity left by the disappearance of the embryo. It appeared that the mites were seed borne or came in the bags with the seed. No further report of this type of pest has been received.

Root Mealy bug continues to give trouble on one or two estates in Coorg. Work will be taken up on this pest in the coming year.

Specimens of suspected *Stephanoderes* have been received from various estates and invariably despatched to the Mysore Government Entomologist. The situation with regard to this pest is still obscure and none of the specimens received were identified as *Stephanoderes Hampei*.

Future Programme.—Work will be continued along the lines laid down in the previous section of the report dealing with investigations in progress.

In addition, it is hoped to commence work on Cockchafer and Mealy bug in Coorg during the coming year.

Correspondence, Meetings.—Two hundred and eight letters have been received during the year and 188 despatched. As has been pointed out in the report, the majority of the enquiries received have to do with spraying and manuring.

Meetings of the Advisory Board of the Coffee Experiment Station and of the Mysore Planters' Association have been attended. An outline of the work in progress was given at a meeting of the Shevaroy Planters' Association in July, 1930.

Acknowledgments.—I should like to take this opportunity to express my deep sense of gratitude to Dr. Coleman and the members of his staff for their unfailing kindness and help during the year, and also to the many planters with whom I have had the opportunities of much fruitful discussion.

W. WILSON MAYNE,
Coffee Scientific Officer.

RUBBER SCIENTIFIC DEPARTMENT.

ADMINISTRATION REPORT

For January to July 1931

OF

R. A. TAYLOR, B.Sc.,

Rubber Scientific Officer.

The Station was taken over from Mr. G. N. Frattini in January, and full charge was assumed from the 10th of that month.

Staff.—In January the Staff was as follows:—

Senior Indian Assistant .. Mr. T. R. Ramaier, in charge of all Field work.

Senior Laboratory Assistant Mr. T. V. Cheriako in charge of Laboratory work.

Junior Assistants .. Mr. A. Krishna Pillai, whose time was divided between the Field and the Laboratory.

Mr. K. A. Varughese in the Laboratory.

Office Mr. M. V. Mani (Writer), and P. V. John (Peon.)

Mechanic Mr. P. Balan, in charge of Lighting and Pumping Plants.

Subsequent to his report of August 1930, Mr. Frattini dispensed with the services of several superfluous members of the staff. The post of Laboratory peon was cancelled, and a cooly employed as required.

One or two changes have occurred since January. Mr. Cheriako returned to Government service on February 28th, and his place was taken by Mr. V. T. Abraham, B.A.

On May 31st the Rubber Advisory Committee instructed that the services of Mr. T. R. Ramaier be dispensed with on the score of economy, and Mr. Krishna Pillai was promoted to take his place.

With these alterations the Staff remains as given above, and I have to report that the services of these men have been entirely satisfactory.

Buildings.—Minor repairs have been carried out and all are at present in a reasonable state of repair. It should, however, be stated that the length of life of these buildings cannot be expected to be very long. Except for the recently constructed assistant's bungalow they are almost completely innocent of foundations, and this combined with the entire absence of drains is not conducive to long life or during the monsoons to extreme comfort.

Bungalow.—Regarding the condition of this building I can only endorse the remarks made by Mr. Frattini last year. The old stairway has been removed and replaced by what is considered a safer and more convenient structure. Four rooms have been distempered. A little painting has been done and Brunolinum applied to some of the woodwork.

Permission to purchase an English pattern bath and two iron bedsteads with mattresses was obtained and acted on.

Water Supply and Lighting.—The lighting system has worked satisfactorily on the whole, but several replacements were necessary in the case of the Engine.

The water supply was, in January, quite unsatisfactory, and a new well and settling tank were constructed. The water is now obtained uncontaminated by the swamp from which it was previously drawn. The pumping outfit was out of order on my arrival, and still is. It is thought that replacement will be necessary when funds permit. While it may be argued that the engine is not sufficiently powerful, there can be little doubt that it has had careless treatment in the past.

FIELD WORK.

Spraying.—As only a small area had to be sprayed this year the work was not commenced until the middle of May. Rain interfered to a certain extent, and also water was not available at a reasonable distance. The work, however, was eventually completed and there is practically no fall of leaf on the Station. The usual full strength spray mixture was used.

Ancikulam Station.—This block of 78 acres was relinquished by the Rubber Advisory Committee at the end of January. Records of the yields of the various plots were kept up to that date.

Test Tapping.—Cuts were opened on 245 trees on April 1st at a height of 1 metre. Where experimental tapping had previously been carried out, the new cut was put on the other side of the tree. The same criterion of tappable size as was previously chosen, *viz.* 40 cm. girth at 3 feet, was adhered to.

It is not proposed to include in this report any yield figure as these have already been given in fair detail in the report for the second quarter of 1931. It may be remarked that among these trees none show any very special promise if compared with trees from other countries. This statement should, however, be considered in conjunction with the fact that many of the trees are young and that yields in other countries are generally a little higher than those

obtained in S. India. It is quite possible that with somewhat different treatment to suit the special climatic conditions prevailing, we have here useful material. Further, the present results should not deter those now searching for high yielding trees on estates. We have undoubtedly in S. India quite as promising material to work with as was available elsewhere and all that is required is to discover and exploit it. Also these trees are the results of the first selection made here and there is good reason to believe that clones introduced later will be more valuable.

It is to be regretted that in many cases clones are represented by only one or two individuals, which number is of course totally inadequate for a real test of value. The acquisition of further land for testing purposes is urgently needed if this work is not to fall still further behind. Clones of 100 or at least 50 trees are desirable as it will be necessary to compare different tapping systems on the better clones before the optimum for each case is discovered. It seems quite possible that a clone giving a good yield may be superseded by another which under the normal tapping system of $\frac{1}{2}$ cut alternate day, gives less, if the latter is found by reason of better bark renewal or resistance to Brown Bast to be able to take two cuts or to be tapped with greater frequency.

With this in view 20 trees of clone P, the only clone on the Station represented by more than 100 trees, have been tapped since April on two cuts on $\frac{1}{2}$ circumference. The yield from the top cut at 2 metres, so far has averaged 67% of that of the lower cut. This is considerably more than could be expected from seedling trees under the same conditions, and also a great part of the difference in yield between the two cuts is to be accounted for by a lower grade of tapping owing to the height.

On these trees an allowance of 20 cm. of bark per annum has been made provisionally. This is rather more than normal estate consumption but allows for a 10 years' renewal.

It is thought that no recommendations regarding clones should be made until at least one year's and preferably two years' tapping figures are available. By the quarterly publication of yields, estates can follow the yields of their trees, and can multiply any material which shows promise, and so be ready to enter the market with quantities of proved material as soon as station results permit of the publication of any recommendation. The extensive cutting of budwood from station trees after 20 tappings is deprecated. The future yield of these particular trees is affected for some time and no data regarding renewal of bark or resistance to Brown Bast are available. The extensive use of such partly tested budwood as planting material is not recommended.

Budding.—A full report of the budding carried out during April to May has also been made and no repetition in detail is thought necessary. Notes on the subject fall under the following headings:—

(1) *Budding on to 20-month-old seedlings.*—This was to provide material for planting up about $\frac{1}{2}$ acre of land which was reclaimed from a squatter. Four clones represented on the station by only one or two plants were used.

Supply plants required to fill vacancies in the existing clearings were also budded here.

(2) *Budding in the 1927 Clearing.*—This Clearing has been planted up with a mixture of budded plants and seedlings selected by the tube bore method. As the whole of the later 1928 Clearing has been planted with bore selected material it was thought unnecessary to retain all these selected plants in this clearing and several have been budded. In budding the object has been to obtain clones of 20 plants forming compact blocks. The original arrangement of the plants was no doubt intended to neutralise varying soil conditions, but it appears doubtful if the effect of this factor will cause such large differences in yield as will mean the rejection of one clone and the acceptance of a poorer. This mixed arrangement has made it impossible to obtain compact clones, but when the present work is completed it is thought that future tapping arrangements will be simplified. As it was, individual yield records would have been essential and it will be clearly recognized that, while this is possible on a small scale, the supervision necessary would not be available where large blocks had to be dealt with.

Budding was, however, done at a height of 2 feet above ground level so that eventually both stock and scion can be tapped.

(3) *Budding in the Budwood Nursery.*—It is thought that all clones available should be represented here, and with this in view a start has been made. As well as clones already on the Station, several imported clones, and material from newly observed high yielders have been introduced.

As stocks the 3-year-old seedlings in an old nursery have been used, and by the growth obtained this choice appears to have been justified. Several buds were attached to each at an average height of 3 feet. Notes on "buddability", early sprouting, etc., are being kept.

A Mother Tree Record book and a Budwood Multiplication book have been printed and kept up to date.

(4) Budding on to Roots.

(5) Budding on to branches with subsequent marcotting of the branch below insertion of the bud.

The object of these is to discover a method whereby uniform stocks can be obtained to permit of a study of inter effect of stock and scion. At present with seedling stocks no two are identical and therefore there is great variation at least in growth within any clone. Success in the actual budding has been satisfactory.

Opening work.—Under this heading only the opening of the recovered land already mentioned may be noted. This small area was contour platform terraced, and holes 2½ ft. by 2½ ft. by 3 ft. deep were opened at 12 ft. intervals along the terraces. Seeds of leguminous plants were put in both for cover crop purposes and for green manuring. 100 budded plants, 25 from each of 4 clones were planted, and also 12 root buddings.

Maintenance work.—The usual sickling down of weeds has been carried out as required and over about half of the Station selective weeding has been practised, leguminous plants only being left. A fair cover of these has been produced.

Approximately 50 pits an acre have been cut throughout the planted area. This is the first step in a projected attempt to store a large portion of the N. E. Monsoon water in the soil for use in the long dry period. If conditions of work permit, further measures are to be adopted later.

Diseases and Pests.—Numerous cases of Pink disease (*Corticium salmonicolor*) have had to be treated, but attack has not been of a very serious nature.

Sunscorch of young budded plants and in some cases of unbudded seedlings has been met with on the Station, and has been reported from several estates. This is not a disease, and there is strictly speaking therefore no cure. Once a tree has suffered nothing can be done apart from the prevention of extension or the entrance of parasitic fungi or boring insects. The encouragement of healthy growth by cultivation and possibly in severe cases by the application of small quantities of manure will hasten the natural healing processes.

Much can, however, be done to prevent the occurrence of the wounds by shading during the dry weather. In a note on the subject published in the "Planters' Chronicle" the use of hedges of tall growing green manure plants, running in an east and west direction at a short distance away from the trees, was recommended and low shade such as is afforded by dadaps or gliricidias can also be expected to help.

Several trees on the Station were lost during the early months of the year through drought. In all cases they had been growing in shallow soil overlying rock, and vacancies caused in this way have not been filled.

The application of a disinfectant mixture has effectively controlled Bark Rot, and no cases of Brown Bast have occurred to date.

Among pests can be listed Bandicoots, and these, until controlled by the use of "Cyanogas," caused havoc in the nurseries by eating through the taproot of the plants just below ground.

Attack by Mites or other puncturing insects on young nursery shoots has been observed on the Station, and reported from an estate. Such attack has not however been extensive, and it is thought that the use of powdered sulphur will give effective control.

Green Manures and Cover Crops.—A collection of leguminous plants which may prove useful for these purposes has been started, and approximately 50 species are growing in a special nursery.

While creeping or climbing plants may be said to have the dual function of preventing soil wash and of adding to the organic

content of the soil, it is thought that the use of the taller growing plants, the loppings of which can be buried or mulched, might be profitably extended. In this connection the increase of the Nitrogen and Humus contents of the soil only have been considered by most but it seems possible that further search may bring to our knowledge a plant which has the faculty of making use of the latent stores of Potash contained in most soils but which the average plant is unable to utilise. The decomposition of loppings of such a green manure plant would add to the soil extra Potash in a readily available form.

Owing to lack of facilities the analysis of haulm from large numbers of plants is at present impossible, but it is thought that such investigation should be kept in view.

One other point in this connection is the optimal season for the burying of green manure loppings. The long dry season experienced in S. India makes it imperative that this should be the subject of investigation.

Nurseries.—Nurseries are being prepared for the reception of seeds collected from individual trees and clones on the Station. The plants produced will be of mixed character owing to the uncontrolled pollination, but certain plants are known to produce more vigorous progeny than others and by the use of such as stocks, more vigorous growth of the resulting budded complex may be obtained provided any dwarfing effect is absent. In the absence of uniform vegetatively raised stocks it is thought that, on the Station, the origin at least of the seedling stocks should be known.

Plan of Station.—A reasonably accurate outline plan of the Station has been prepared. Such a plan is considered necessary if the outline of the various clearings and the treatment given them is not to be lost sight of. The intention is finally to mark out the whole area in square chains.

LABORATORY.

Yield Records.—While the tapping and collection of latex is supervised by the Field Assistant, the rolling and weighing of the resultant rubber is regarded as Laboratory routine, and this has been the special work of Mr. Varughese.

Distinctive Features of Clones.—Study of leaf measurements of 91 clones have been made and the data obtained enable a large percentage of these to be distinguished by this means.

Examination of sections of various organs has been begun, but in this connection there is, as yet, nothing to report.

Samples of seed from all clones producing fruits are being collected and preserved for permanent reference. It is well known that all clones can be recognized by this means.

Tube Bore.—Several measurements have been made, but no investigations on the subject are projected pending the publication of Mr. Ashplant's final article.

Office.—Some alteration in the system of accounting has been made, and complete stock lists have been prepared of Station furniture, Laboratory furnishings, apparatus, chemicals, and the contents of the store room and tool shed. A system of issue of material in stock and of tools has been commenced.

Rainfall.—

July	1930	..	..	21.13 inches.
August	"	..	..	12.86 "
September	"	..	..	29.02 "
October	"	..	..	30.77 "
November	"	..	..	22.80 "
December	"	..	..	3.59 "
January	1931	..	..	..
February	"	..	..	0.21 "
March	"	..	..	5.03 "
April	"	..	..	10.67 "
May	"	..	..	9.60 "
June	"	..	..	28.75 "

Total .. 174.43 inches.

GENERAL.

Recently an examination of rainfall and crop distribution has been made and the data collected point to a line of work which might be expected to yield useful results at no very distant date. I refer to a study of cultural operations suited to the irregular distribution of S. Indian rainfall. This, while probably never assuming quite the same importance as the raising of higher yielding strains of plants, may go far to increase the average yield per acre.

The problem facing us here is not met with in any of the other rubber growing countries in the East. Our rainfall is ample or more than ample if we consider only total precipitation but when one examines the percentage contributed month by month one finds that the distribution resembles very closely that experienced in some of the dry-farming districts in America. For approximately 7 months the rainfall registered is sufficient for our needs but for the other 5 months, at least in many years, we have to rely on the balance left in the soil after the N. E. Monsoon.

At the end of the wet season the soil is presumably full to the capacity with moisture, but as no effort is generally made to prevent leakage from this cistern, the hot suns of late December and January account for the evaporation of a large proportion of the reserve and therefore the trees are stunted. By April there can be little water available for the shallow feeding roots, and trees without taproots often pass out. There would appear to be little object in planting up areas of high yielding material if no measures are to be taken to ensure that the plants are to be given a reasonable chance to give of their best.

It is desirable that work be undertaken to find out the best method of ensuring that the soil is stored with as much water as possible in December and also the most suitable means of reducing surface evaporation to a minimum during the ensuing 5 months.

The light rains often registered in March, April and May frequently do more harm than good. The precipitation is insufficient to supply moisture to our plants for more than a few hours and the heavier showers have the effect of reforming continuity of capillary water in the soil and so permitting the withdrawal of water for evaporation from greater depths. More water is frequently lost by evaporation under these conditions than is gained through fall of rain. The falling of the water level in wells during April and May is proof of this contention.

What methods will prove most successful, are as yet unknown and if experiments are to be undertaken, we will have to be guided by a study of the operations in general use in dry-farming tracts.

MUNDAKAYAM, }
23rd July 1931. }

R. A. TAYLOR,
Rubber Scientific Officer.

ACCOUNTS, 1930-1931.

" Legal Charges ..	..	482	12	0
" Medical ..	..	50		
To Meetings ..	..	3,877	10	2
" Employers' Federation of Southern India ..	..	-250	0	0
To POLITICAL DEPARTMENT, U.P.A.S.I., SHARE OF EXPENDITURE ..	..	..	..	..
		22,540	8	7
To SCIENTIFIC DEPARTMENT— " Head Office ..	..	1,285	0	0
" Contribution to Indian Tea Association ..	..	10,000	0	0
" Nellokoth Tea Experimental Station ..	..	49,404	12	11
" Coffee Scientific Department ..	..	11,240	12	1
" Mandakayam Rubber Station ..	..	30,684	3	9
To LABOUR DEPARTMENT— " Director's Expenditure ..	..	54,008	2	10
" Combaratore Division ..	..	38,562	14	9
" Mangalore Division ..	..	36,709	13	10
" Mysore Division ..	..	34,208	11	3
" Palancottah Division ..	..	47,818	12	11
" Salem Division ..	..	29,421	14	0
" Srivilliputtur Division ..	..	42,069	11	7
Total Rs. ..	..	4,56,265	5	3
By Contributions from— " The Madras Government ..	..	44,143	4	7
" Rubber Growers' Association ..	..	4,127	10	2
" Coorg and Travancore Governments ..	..	22,540	8	7
By Interest ..	..	11,358	14	5
" Profit on sale of Planting Directory ..	..	655	10	0
" Sundry Receipts ..	..	169	9	2
" Profit on "Planters' Chronicle" ..	..	96	3	2
" Sale of Produce ..	..	864	14	6
By Expenditure over Income ..	..	13,175	3	3
Total Rs. ..	..	63,165	7	0
Total Rs. ..	..	4,56,265	5	3

THE UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA.
(INCORPORATED.)

Balance Sheet as at 31st March 1931.

[illegible]

Balance Sheet as at 31st March 1931—(continued.)

[illegible]

Imperial Bank of India	57,000	0	0	
Fixed Deposit				
British War Loan				
£ 3,000 at Cost	40,658	2	6	
Government Bonds 5%				
1945-55 at cost (Face value Rs. 5,000)	5,075	0	0	
Interest accrued on				
Fixed Deposit & on				
Government paper	2,346	15	1	
Imperial Bank of India				
Current Account	1,044	5	0	
Cash at Head Office	0	0	6	
	1,17,825	11	1	
Suspense (Due by Bishop Cotton School) account				
Wilkins' Boy's School fee in advance	74	1	0	1,17,899 12
PROVIDENT FUND INVESTMENTS.—				
Post Office Cash Certificates Rs. 10,000 at Cost	8,000	0	0	
6% 1931 Bonds for Rs. 2,300 at Cost	2,420	12	0	
5% 1933 Bonds for Rs. 1,400 at Cost	1,457	12	0	
5% 1945-55 Bonds for Rs. 1,55,000 at Cost	1,60,904	9	0	
5% 1929-47 British War Bonds £1,000 at Cost.	13,610	6	6	

BUDGET, 1931-1932.

UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA.

(INCORPORATED.)

BUDGET, 1931-32.

EXPENDITURE.	Rs.	Rs.	INCOME.	Rs.	Rs.
To HEAD OFFICE.					
Secretary-Mr. H. Waddington	8,550		By SUBSCRIPTIONS.		
Mr. C. H. Brock	5810		Firms & Companies	3,150	
Asst. Secretary	10,100		Tea 125,337 acres at 6 as.	47,001	
Rents, Bungalows & Office	6,700		Coffee 45,936 " at 4½ as.	12,920	
Clerical Staff	4,750		Rubber 45,190 " at 1 anna.	2,824	
Telephones & Fans	425		Minor P. 4,730 " at 3½ as.	1,109	
Peons	260				67,004
Postages & Telegrams	500				
Printing and Stationery	1,000				
Bank Charges	100		By LABOUR DEPARTMENT.		
Audit	500		To be collected		1,82,285
Insurance & Depreciation	750				
Incidentals	455		By SCIENTIFIC DEPARTMENT.		
Periodicals & Library	100		Contributions from—		
Provident Funds	2306		Madras Government.	28,000	
Passages	1,900		Coorg "	2,350	
	44,206				

<i>Less:</i>	6,000	8,400	35,806	" Travancore "	2,955	35,071
Playing Agency	1,200			" R. G. A.	2,966	
Soc. Department	1,200		3,500	Proceeds Tea Cess at 6 annas.	47,001	
				Proceeds Rubber Cess at 3½ as.	9,179	56,180
To Pension Account				By INTEREST		5,000
To MEETINGS	5,000	5,000	5,250	By SUNDRY RECEIPTS		2,000
Employers Federation of S. I.	250			By BALANCE.		
To POLITICAL DEPARTMENT.				Loan to Rubber Balance	7,766 43,885	51,651
Mr. F. E. James	25,110					
Clerk	864					
Poon & Sweeper	276					
Provident Fund	2,565					
Rent	560					
Postages, Stationery Incidentals & Books	615					
Telephones and Fans	260					
Travelling	750					
	31,000					
	18,000		13,000			
<i>Less Contributions from other parties ..</i>						
To SCIENTIFIC DEPARTMENT.						
Tea Experimental Station	55,000					
Indian Tea Association	2,500					
Coffee Scientific Officer	11,000					
Mundakayam Rubber Station	28,300					
General Charges	1,550					
			98,350			

UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA.

(INCORPORATED.)

BUDGET, 1931-32.—(contd.)

EXPENDITURE.	Rs.	Rs.	INCOME.	Rs.	Rs.
To LABOUR DEPARTMENT.					
Director's Office & Reserve for emergencies	42,735				
Coimbatore Division	33,650				
Mangalore Division	32,800				
Mysore Division	29,000				
Palamcottah Division	40,000				
Salem Division	27,700				
Srivilliputtur Division	38,400				
		2,44,285			
Total Rs. ..		4,00,191		Total Rs. ..	4,00,191

MADRAS,

15th August 1931.

C. H. BROCK,
Secretary.

Passed at the General Committee Meeting held on the 20th April 1931.

APPENDIX.

Rules of the U. P. A. S. I. (Incorporated).

I. Each District Association shall register with the Secretary not later than 1st day of January each year details of the area on which subscriptions due to the U.P.A.S.I. are to be calculated for the ensuing year.

II. The Chairman shall be elected by ballot at the Ordinary General Meeting of the Association held each year and shall hold Office until a successor has been duly elected.

III. Should the Office of Chairman become vacant the Executive Committee shall appoint one of its members to hold office and fill the consequent vacancy in the Committee, such appointments to hold good until the next Ordinary General Meeting of the Association.

IV. In the absence of the Chairman in the case of any Banking Accounts requiring two signatures those of the Secretary and any member of the Executive Committee shall suffice.

V. The election of the Executive Committee shall be by ballot, representatives of each industry to be elected by the votes of the area under the corresponding products only.

VI. No subject other than those on the published Agenda shall be discussed except with the consent of the meeting. No original proposition shall be made unless thirty days notice in the case of an Ordinary Meeting and fourteen days notice in the case of a General Committee Meeting, stating objects and reasons, has been given to the Secretary, except with the consent of the Executive Committee with which a copy of the proposed resolution has been lodged at least two days before the meeting.

VII. In addition to its two nominated representatives each District Association may send three of its members to attend the General Meeting of the Association who shall be allowed to address the meeting, with the permission of the Chairman, but shall not vote.

VIII. The Budget for the ensuing year shall be submitted to the General Committee before the 1st day of March and the Budget Meeting of the General Committee be held at any convenient date in the latter half March each year.

IX. The Trustee of the Cochin Port Trust representing the Association shall always, if possible, be a planter and shall be elected by the postal vote of the active Members of the Executive Committee.

X. When declaring acreage for any one year, District Associations may reduce their previously declared areas on account of areas actually abandoned. The word "abandoned" shall be taken to mean:

(a) Any area from which no crop is harvested, and

(b) on which no agricultural operations are conducted, during that financial year in both cases.

THE U. P. A. S. I. BUYING AGENCY (U.B.A.)

Rules.

- Constitution.** I. The Agency is and shall be a Department of the United Planters' Association of Southern India, and as such its affairs shall be administered by the General and Executive Committees of that body and the Secretary shall be the Secretary of the U.P.A.S.I.
- Objects.** II. As an Agency to obtain concessions as regards prices charged for goods supplied or services rendered its members in return for prompt payment and to encourage combination in placing buying orders.
- Membership.** III. The following shall be entitled to membership on the payment of an annual subscription of Rs. 10 which may be collected by the Secretary forwarding the Membership Ticket by V. P. Post for Rs. 10-4-0.
- All Members and European employees of Members of the U.P.A.S.I., all Members of District Associations which are members of the U.P.A.S.I., and all European employees of the U.P.A.S.I.
- IV. Membership shall be reckoned from the 1st of the month nearest to the date of receipt of application and all renewals shall date from the expiry of the previous ticket, in no case shall any allowance be made for absence on leave or any ticket be issued for a period of less than twelve months. Any member whose subscription is one year in arrears shall cease to be a member.
- V. A member's subscription will cover purchases by himself or any actual dependant and all purchases for any estate of which he is Superintendent or Owner (otherwise than as a Director or Shareholder only) if they subscribe to a District Association which is a member of the U.P.A.S.I.
- VI. Members failing to settle their accounts with Firms in the list as provided for in Rule VII will be liable to have their names removed from the list of members and cease to be entitled to any of the benefits obtained by the Agency.
- VII. The names of Firms, Companies and persons who agree to grant special terms to Members of the Agency shall be entered in a list kept for that purpose which shall from time to time be circulated to all Members; and such firms, Companies and persons shall be furnished periodically with the Agency list of members.
- Liability.** VIII. The Agency will not be responsible in any way for the action of its members or of the firms, Companies, and others granting special terms.
- Profits.** IX. Any balance being a Profit at the end of a year shall be credited to the Southern India Planters' Benevolent Fund.
- X. In no case shall the Secretary act as the agent of a member in any business connected with the Agency.

SOUTHERN INDIA PLANTERS' BENEVOLENT FUND.

*Registered under the Societies' Registration Act XXI of
1860 on the 22nd January 1924.*

Resolution of 1909.

PASSED ON AUGUST 13th, 1909.

"That in view of the great benefits a Benevolent Fund would confer on the whole Planting Community, this Association recommends the starting of a Benevolent Fund for the Planters of Southern India on the lines drawn up by this meeting, and that the Secretaries of local District Associations be requested to collect subscriptions and forward such to the Secretary, U.P.A.S.I."

Memorandum of Association of the Southern India Planters' Benevolent Fund.

1. The name of the Association is the Southern India Planters' Benevolent Fund hereinafter referred to as "The Fund."
 2. The objects for which the Association has been started are:—
 - (a) To give temporary assistance to members or to dependents of members who are in distress as the result of any good and sufficient cause.
 - (b) To give temporary assistance in special cases to dependents of European planters who are not members.
 - (c) Generally to make such use of the funds of the Association as will best effect the carrying out of the aforesaid objects or any of them, but in no case is it intended to provide an annual income.
-

Rules and Regulations of the Southern India Planters' Benevolent Fund.

- Membership.** 1. Subject to Rule 4 the following shall be entitled to membership:—
- (a) Any European Proprietor, Manager, Superintendent Assistant or Recruiter of an Estate subscribing to District Planters' Association which is a Member of the United Planters' Association of Southern India or who is himself a subscriber to such an Association or any European Employee of the United Planters' Association of Southern India on payment of a minimum subscription of Rs. 10 per annum.
 - (b) Any Estate subscribing to a District Planters' Association which is a member of the United Planters' Association of Southern India or any member of the United Planters' Association of Southern India on payment of a minimum subscription of Rs. 25 per annum.
- Life Membership.** 2. A donor of Rs. 200 or any member subscribing Rs. 20 within a period not exceeding five years shall be considered a Life Member and entitled to the benefits of the Fund without payment of further subscriptions.
- Patrons and Life Members.** 3. A donor of Rs. 1,000 either in one or more instalments shall be welcomed as a patron and shall be considered a LIFE MEMBER and be entitled to all benefits of the Fund, and shall not be subject to the provisions of Rule 8.
- Application for Membership and Committee rights of refusal.** 4. All first subscriptions and applications for membership shall be sent to the Secretary on a form to be prescribed by the General Committee through the Honorary Secretaries of District Planters' Associations, who shall certify that the applicant is eligible for membership under Rule 1 and the Executive Committee shall have the right of refusing any subscription and rejecting any application for membership.
- Withdrawal of Membership.** 5. Any member shall have the right of resigning his membership by giving notice in writing to the Secretary on or before the 31st March of any year provided that his subscription shall have been paid up to the 31st of March of that year.
- Subscription due on 1st April.** 6. All subscriptions shall be due on the 1st April each year and the Secretary or Honorary Secretaries of local Associations shall collect the same.
- Subscriptions in arrears.** 7. Any member whose subscription is more than one year in arrears shall only be entitled to such benefit as is allowed under Rule 22 which restriction shall remain in force for two years after payment of such arrears.

8. Any member except a donor of Rs. 1,000 who by reason of change in his profession or employment would not be eligible for membership under Rule 1 but wishes to retain his membership shall submit an application to remain a member to the Secretary for the decision of the Executive Committee whose decision shall be final.
9. All subscriptions of less than the minimum laid down in Rule 1 or received from persons not eligible for membership shall be treated as donations to the Fund.
10. The Fund shall be administered by a General Committee composed of the Members of the General Committee of the United Planters' Association of Southern India, whose Secretary shall also be the Secretary of the Fund.
11. The General Committee shall appoint an Executive Committee and may delegate to it any of the powers of the General Committee except those of making, altering or repealing by-laws.
12. The General Committee shall have power—
- (a) to arrange for meetings of the members of the Fund and for its own meetings and to regulate the procedure at all such meetings including the system of voting and to alter such procedure;
 - (b) to make, alter and repeal all such by-laws as they may deem necessary or convenient for the proper conduct and management of the Fund provided that no by-law shall be inconsistent with or shall affect or repeal anything contained in the Memorandum of Association or the Rules of the Fund.
13. At any meeting of the General Committee 7 members shall form a quorum of whom no two shall be members of the same Planters' District Association.
14. The Chairman and the Secretary of the United Planters' Association of Southern India shall be the Trustees of the Fund for the time being.
15. All the property of the Fund moveable and immoveable shall vest in the Trustees and all documents relating to and affecting the property of the Fund shall be taken and stand in the name of the Fund; all documents relating to the properties of the Fund shall be executed by the Trustees for and on behalf of the Fund.
16. The Fund shall sue or be sued in the name of the Secretary.
17. All subscriptions and monies received shall be paid into a separate account with the Imperial Bank of India, and it shall require the joint signatures of the Trustees to draw any money from that account.

- Investments.** 18. The monies of the Fund shall be invested in any investments allowed by the law for the time being in force for the investments of Trust Funds, or they may be placed in fixed deposit with the Imperial Bank of India.
- Application for Assistance.** 19. All applications for assistance or relief shall be made on a form to be prescribed by the General Committee and forwarded to the Executive Committee through the Secretary. Applications for assistance for employees of the United Planters' Association of Southern India shall be made direct to the Executive Committee by the Chairman of the United Planters' Association of Southern India.
- Limitation of Objects.** 20. No grants involving periodical payments shall in the first instance or in case of subsequent renewal be made for longer period than six months. It shall, however, be competent for anyone in distress to apply for further relief, and the Executive Committee may render such assistance if the Funds are sufficient to meet the deserving cases of first applicants. In no case shall first class passages be granted if second class are available.
- Right of District Associations to grant emergency Assistance.** 21. The Secretary of any District Association may, with the sanction of his Association or Committee, give temporary relief in case of emergency to the extent of Rs. 100 in any one case provided that the applicant for relief is a member of the Fund or a dependent of a member.
- Grants to Non-Member.** 22. Dependents of European Planters other than members may receive assistance from the Fund only on the unanimous recommendation of the Committee or other administrative body of the Planters' District Association recommending such assistance.
- Repeal or Amendment of Rules.** 23. These rules may be added to, repealed, or amended by resolution at any General Meeting of the Fund of which at least three months' notice shall have been given provided that no such resolution shall be deemed to have been passed unless it be carried by a majority of at least three-fifths of the members voting thereon.
-

BY-LAWS.

Confirmed at the First Annual General Meeting held at Bangalore on the 23rd October 1924.

1. That the Annual General Meeting shall be held at the same place and at about the same time as the Annual General Meeting of the United Planters' Association of Southern India.

2. That at all General Meetings voting shall only be by Patrons and District Planters' Associations, members of the U.P.A.S.I. or their representatives and the Chairman of the U.P.A.S.I. Each Patron shall be entitled to five votes. The Chairman of the U.P.A.S.I. shall exercise the votes of the employees of the U.P.A.S.I. and such other members of the Funds as would otherwise be unrepresented. Representatives of District Associations and the Chairman of the U.P.A.S.I. shall be entitled to two votes for every Life Member represented and one vote for each ten rupees of the current year's subscription received before the date of the meeting from members represented by them.

PATRONS.

The Travancore Combined Planters' Association.

The Mysore Planters' Association.

The English and Scottish Joint Co-operative Wholesale Society Ltd.

The Yendayar Estate.

The Nenmeny and Redlynch Estates.

Mr. J. J. Murphy.

Mr. C. R. T. Congreve.

Messrs. Volkart Bros.

" Mangles Bros.

" Stanmore (Anamallay) Estates Co., Ltd.

" Nonsuch Tea Estates Ltd.

LIST OF LIFE MEMBERS.

Patrons under the Old Rules.

T. H. Allan & Co.	Kinalur Rubber Co. Ltd.
Anupura Coffee Works Co. Ltd.	Korangamudi Estate.
Sir Fairless Barber, <i>Kt.</i>	Kuttiadi Rubber Co. Ltd.
S. Bayly.	R. Lescher.
Binny's Estates Ltd.	J. Mackie.
Lt.-Col. C. H. Brock, <i>O.B.E.</i> , V.D.	C. A. Mackenzie.
Castlecroft Estate.	Malayalam Plantations, Ltd.
E. Sydenham Clarke.	B. A. Marden.
Colombo Commercial Co. Ltd.	G. A. Marsh.
Consolidated Coffee Estates Ltd.	C. L. McLean.
C. Courpalais.	Brooke Mockett.
H. Cuthell.	Mundakayam V. Rubber Co.
Lt.-Col. W. L. Crawford, D.S.O.	Muskal Bora Estate.
A. S. Dandison.	L. Newcome.
Darragh Smail & Co. Ltd.	J. S. Nicolls.
Eddivanna Rubber Co. Ltd.	K. E. Nicoll.
D. Elkington.	G. R. Oliver.
G. P. Farley.	Peirce, Leslie & Co. Ltd.
E. T. C. Farr.	Portland Estate.
T. W. H. Fitchett.	Presidency Manure Works.
R. G. Foster.	Pudukad Rubber Co. Ltd.
J. F. Fraser.	Puthuthottam Estate.
T. P. Gauld.	J. A. Richardson.
G. L. H. Gibson.	J. H. Robinson.
C. H. Godfrey.	R. Ross.
C. J. Hall.	A. J. Saldanha & Sons.
E. Hall.	Sholayar Estate.
E. H. Halliley.	E. W. Simcock.
J. G. Hamilton.	Sir R. Stanes, <i>Kt.</i>
R. Harley.	Tea Estates India, Ltd.
Harrisons and Crosfield, Ltd.	Thodapuzha Rubber Co. Ltd.
Campbell Hunt.	Travancore Rubber Co. Ltd.
C. St. John Ives.	J. R. Vincent.
J. H. Ireland Jones.	H. Waddington.
Karamalai Estate.	H. J. Walmsley.
Kerala Calicut Estates Ltd.	Capt. E. G. Windle.
	Woodlands and Olands Estates.
	W. Woodman.
	B. Wolde.

REPORT
OF THE
EIGHTH ANNUAL GENERAL MEETING
OF THE
SOUTHERN INDIA PLANTERS' BENEVOLENT FUND.
(INCORPORATED)

**Proceedings of the Eighth Annual General Meeting of the
Southern India Planters' Benevolent Fund (Incorporated)
held at the Mayo Hall, Bangalore.**

The Chairman asked whether any member had any objection to this Meeting being brought forward earlier than it was tabled. No one having any objection, the Meeting was proceeded with.

The Meeting was held at 11-30 a.m. on Wednesday the 19th.

Present.

Mr. C. R. T. Congreve	<i>Chairman.</i>
Lt.-Col. C. H. Brock	<i>Secretary.</i>
Lt.-Comdr. E. L. Hill	<i>Asst. Secretary.</i>

and the following representatives of members:—

Anamallais ..	Messrs. J. H. Ireland Jones and Eric Johnson.
Central Travancore ..	Mr. J. H. Cantlay.
Coorg ..	Mr. A. E. J. Nicolls and Lt.-Col. H. F. Murland.
Kanan Devans ..	Messrs. G. R. Strachan and E. N. Pinks.
Mundakayam ..	Mr. H. B. Macpherson.
Mysore ..	Messrs. L. Garrett, L. Newcome and E. W. Fowke.
Nelliampathies ..	Mr. P. W. Davis.
Nilgiris ..	Mr. C. L. Greig.
Nilgiri-Wynaad ..	Messrs. R. M. Nicolls and A. N. Scott Hart.
Shevaroy ..	Capt. E. H. A. Travers-Drapes.
South Travancore ..	} Mr. H. J. Walmesley.
West Coast ..	
Wynaad ..	Messrs. I W. Finlayson and R. N. W. Jodrell.
Messrs. H. S. Cameron and H. D. Patch ..	<i>Visitors.</i>

Under instructions from the Chairman the Secretary read the notice calling the meeting.

The Proceedings of the last Annual General Meeting, which was held on the 22nd August, 1930, having been published in full in the Book of Proceedings for that year, were taken as read and confirmed.

Secretary's Report for the Year ending March 31st, 1931.

The Secretary read the following report:—

The total subscriptions and donations received during the year 1930-31 were Rs. 8,455-4-0, which is about Rs. 500 less than last year and Rs. 2,000 less than the year before that. The actual number of planters subscribing to the Fund increased by four, but still there are only 376 subscribers out of a possible 600 to 700 planters, who are members of District Associations. The fall in receipts is due to smaller donations. Revenue is likely to decrease still more, as several estates have notified their intention of discontinuing their subscriptions in the new year.

Other receipts were Rs. 1,330-11-0 from the Buying Agency and Rs. 5,080-14-4 interest on investments, making the total income for the year Rs. 14,866-13-4.

During the year assistance granted amounted to Rs. 13,051-14-8, or about Rs. 700 more than the year before and is the highest sum disbursed in any year since the start of the Fund.

Securities had to be written down by Rs. 1,098-7-0 owing to depreciation in market value and remaining expenses amounted to Rs. 45-2-6.

The total of the Fund at the 31st March, 1931, was Rs. 1,17,899-12-1.

The Chairman then addressed the Meeting and pointed out the seriousness of the position during the current year and stated that the question of starting a "one day pay" fund would have to be seriously considered.

He advised the delegates on their return to discuss this with the remaining 300 planters who have not subscribed during the current year.

Mr. L. Newcome then stated that with regard to the 300 non-supporters, it was probably a matter of forgetfulness and suggested that the Secretary should write all planters asking them if their subscriptions could be collected by V. P. P. or Banker's order.

The Chairman moved the following resolution:—

"That the Secretary's Report be adopted."

Carried.

Accounts 1930-31.

The Chairman pointed out that all present had copies of the Accounts for 1930-1931 and proposed:—

"That the Accounts for 1930-1931 be passed and adopted."

Carried.

Executive Committee.

The Chairman explained that, under the rules of the Fund, it was necessary to appoint an Executive Committee, and proposed:—

"That the Executive Committee of the U.P.A.S.I. be the Executive Committee of the Southern India Planters' Benevolent Fund, with all powers of the General Committee except those of making, altering or repealing By-laws."

Carried.

The Chairman asked whether there was any further business which members wished to bring forward.

Mr. R. N. W. Jodrell then suggested that the South Indian Planters' Benevolent Fund business should be placed on the Agenda of every meeting of District Associations.

Mr. J. H. Cantlay suggested that it was the younger planters who were the non-supporters of the Benevolent Fund, and appeals would be of very little use in obtaining subscriptions from them.

Mr. H. J. Walmesley then suggested that the Secretaries of District Associations should take the matter up instead of the Secretary, U.P.A.S.I., as was suggested, and his proposal met with universal approval.

It was thereupon decided that the whole matter should be referred back to District Association Secretaries by the delegates on their return and strong appeal should be made to obtain subscriptions.

There being no further business before the meeting, the Chairman declared it closed.

SOUTHERN INDIA PLANTERS' BENEVOLENT FUND ACCOUNT.

Statement for the year ended 31st March 1931.

RECEIPTS.	Rs.		PAYMENTS.		Rs.		Rs.	
		A. P.				A. P.		A. P.
Subscriptions and Donations	8,455	4 0	Assistance Granted—					
Interest on Fixed Deposit and Government Bonds .. .	5,080	14 4	Case No. 1 Widow		900	0 0		
Profit on Buying Agency .. .	1,330	11 0	" 2 Education of 2 boys and 2 girls ..		600	0 0		
Amount of the Fund as at 31st March 1930 .. .	1,15,784	12 8	" 3 Education of 1 girl		2,211	0 0		
			" 4 Education of 1 girl		144	0 0		
			" 5 Maintenance of 1 child		600	0 0		
			" 6 Home allowance for 1 invalid planter & wife		1,226	9 8		
			" 7 Home allowance for 1 invalid planter		606	14 4		
			" 8 Allowance for a destitute planter ..		600	0 0		
			" 9 Education of 2 girls and 1 boy ..		1,719	9 0		
			" 10 Passage and allowance for a destitute planter, wife and children		2,336	3 8		
			" 11 Allowance for a planter's wife ..		150	0 0		
			" 12 Passage and allowance for a planter, wife and child		1,157	10 0		
			" 13 Temporary help for a planter ..		300	0 0		
			" 14 Do. do.		500	0 0		
			Depreciation on 3½% Government Paper (Rs. 18,500 valued as on 31st March 1931) ..				13,051	14 8
			Expenses—					
			Postage and Telegrams		41	2 6		
			Bank Charges		4	0 0		
			Balance of the Fund as per Balance Sheet		1,17,899	12 1		
			Less due to C. P. A. S. L.		1,448	10 3		
			Balance of the Fund as on 31st March 1931 ..				1,16,456	1 10
Total Rs. .. .	1,30,651	10 0	Total Rs. .. .				1,30,651	10 0

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THE
UNITED PLANTERS' ASSOCIATION.
OF
SOUTHERN INDIA
(INCORPORATED)

THIRTY-NINTH ANNUAL GENERAL MEETING

HELD AT

BANGALORE

ON

16th and 17th August 1932.

WITH APPENDICES.

MADRAS
PRINTED BY ASSOCIATED PRINTERS

1932.

The United Planters' Association

OF

Southern India.

(INCORPORATED)

ESTABLISHED 1894, INCORPORATED 1899,
REORGANIZED 1919.

MEMBERS.

District Planters' Associations.

ANAMALLAI PLANTERS' ASSOCIATION.
CENTRAL TRAVANCORE PLANTERS' ASSOCIATION. *
COORG PLANTERS' ASSOCIATION.
KANAN DEVAN PLANTERS' ASSOCIATION.
MUNDAKAYAM PLANTERS' ASSOCIATION.
MYSORE PLANTERS' ASSOCIATION.
NELLAMPATHY PLANTERS' ASSOCIATION.
NILGIRI PLANTERS' ASSOCIATION.
NILGIRI-WYNAAD PLANTERS' ASSOCIATION
SHEVAROY PLANTERS' ASSOCIATION.
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Executive 1932-1933.

Chairman.—MR. R. FOWKE.

Ex-Chairman.—MR. C. R. T. CONGREVE.

Members.

Members-in-Waiting.

TEA	MR. J. S. B. WALLACE	MR. H. S. CAMERON.
COFFEE	„ L. NEWCOME.	„ E. H. A. TRAVERS-
RUBBER	„ H. J. WALMESLEY.	„ ERIC HALL. DRAPES-

Planting Member.—MR. F. E. JAMES, O.B.E., M.L.C.

Secretary.—LT.-COL. C. H. BROCK, O.B.E., V.D.

Asst. Secretary.—LT.-COMDR. E. L. HILL, R.N. (*Retired.*)

Registered Office.—Parry's Buildings, North Beach Road, Madras.

**HEAD OFFICE:—MERCANTILE BANK BUILDINGS, 1st LINE
BEACH, POST BOX No. 155, MADRAS.**

**AUDITORS:—MESSRS FRASER & ROSS, No. 17, Armenian Street,
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SOLICITORS:—MESSRS. KING & PARTRIDGE.

Honorary Member of the Madras Chamber of Commerce:

LT.-COL. C. H. BROCK, O.B.E., V.D.

Representative on the Indian Tea Cess Committee:

MR. J. S. B. WALLACE.

Representatives on the Legislative Council,

Fort St. George, Madras:

1893-1896..	THE HON'BLE MR. G. ROMILLY.
1896-1900..	„ „ H. P. HODGSON.
1900-1904..	„ „ G. L. ACWORTH.
1904-1908..	„ „ H. P. HODGSON.
1908-1909..	„ „ C. E. ABBOTT.
1909-1912..	„ „ J. G. HAMILTON.
1912-1919..	„ „ SIR FAIRLESS BARBER
1919-1922..	MR. J. A. RICHARDSON, M. L. C.
1922-1923..	„ C. R. T. CONGREVE, M. L. C.
1923-1926..	CAPT. E. G. WINDLE, M. L. C.
1926-1929..	MR. C. R. T. CONGREVE, M. L. C.
1929-1930..	„ F. E. JAMES, M. L. C.
1931	„ H. WADDINGTON, M. L. C.
1931	„ F. E. JAMES, M. L. C.

Former Chairmen.

1894-1895	..	MR. DIGBY T. BRETT.
1895-1896	..	.. W. H. SPROTT.
1896-1897	..	.. G. L. ACWORTH.
1897-1899	..	.. GEO. ROMILLY.
1899-1900	..	.. W. H. SPROTT.
1900-1901	..	.. H. P. HODGSON.
1901-1902	..	.. ROBERT GOMPERTZ.
1902-1903	..	.. J. A. HARRIS.
1903-1904	..	.. GEO. ROMILLY.
1904-1905	..	{ .. H. M. KNIGHT. .. G. K. MARTIN.
1905-1906	..	.. W. H. SPROTT.
1906-1907	..	{ .. J. A. HARRIS. .. AYLMER MARTIN.
1907-1908	..	.. C. E. ABBOTT.
1908-1909	..	.. J. G. HAMILTON.
1909-1910	..	.. J. A. RICHARDSON.
1910-1911	..	{ .. R. D. TIPPING. .. C. H. BROCK. HON. MR. J. G. HAMILTON.
1911-1913	..	MR. C. E. ABBOTT.
1913-1914	..	.. E. L. MAHON.
1914-1915	..	.. J. A. RICHARDSON.
1915-1916	..	.. C. H. BROWNE.
1916-1919	..	.. J. S. NICOLLS.
1919-1920	..	.. A. S. DANDISON.
1920-1921	..	.. C. R. T. CONGREVE.
1921-1924	..	.. H. L. PINCHES.
1924-1925	..	.. J. A. GWYNNE.
1925-1927	..	.. R. FOWKE.
1927-1928	..	.. A. C. COTTON.
1928-1929	..	.. R. LESCHER.
1929-1930	..	.. W. A. J. MILNER.
1930-1932	..	.. C. R. T. CONGREVE.

PROCEEDINGS
OF THE
THIRTY-NINTH ANNUAL GENERAL MEETING
OF THE
UNITED PLANTERS' ASSOCIATION
OF
SOUTHERN INDIA
(INCORPORATED)

The Thirty-ninth Annual General Meeting of the United Planters' Association of Southern India (Incorporated) opened at 10 a.m., on Tuesday, the 16th August 1932, at the Mayo Hall, Bangalore.

The following were present:—

MR. C. R. T. CONGREVE	..	<i>Chairman.</i>
MR. W. A. J. MILNER	..	<i>Ex-Chairman.</i>
MR. F. E. JAMES, O.B.E., M.L.C.	..	<i>Planting Member.</i>
MR. R. N. W. JODRELL	}	<i>Members of the Executive Committee</i>
MR. A. E. J. NICOLLS		
MR. H. J. WALMESLEY		
LT.-COL. C. H. BROCK, O.B.E., V.D.	..	<i>Secretary and Director, Labour Department.</i>
LT.-COMDR. F. L. HILL	..	<i>Asst. Secretary.</i>
MR. K. B. W. JONES, A.R.C.S.C., B.SC., A.L.C.	}	<i>Acting Tea Scientific Officer.</i>
MR. W. WILSON MAYNE, B.SC.		
Messrs. The Anupura Coffee Works Co., Ltd. & Messrs. Peirce, Leslie & Co. Ltd.	per	MESSRS. W.K.M. LANGLEY AND R. LESCHER.
„ Aspinwall & Co. Ltd.	..	„ MR. H. D. PATCH.
„ The English & Scottish Joint Co-operative Wholesale Society Ltd.	..	„ MESSRS. R. FOWKE AND J. C. BLACKHAM.
„ Harrisons & Crosfield Ltd.	..	„ MR. C. A. R. PARK.
„ Imperial Chemical Industries (India) Ltd.	..	„ MR. R. L. HAMAND.
„ Overseas Export Co., Ltd.	..	„ MR. C. I. CASEY AND DR. P. PIEKENBROCK.
„ Parry & Co. Ltd.	..	„ MR. S. G. H. DAVIS.
„ Southern India Plantations Agency Ltd.	..	„ MR. H. S. CAMERON.
„ T. Stanes & Co. Ltd...	..	„ MR. C. E. WOOTTON.
„ Tea Estates (India) Ltd...	..	„ MR. W. H. MILLAR.

And the following representatives of Associations:—

<i>Anamallais</i>	.. {	MESSRS. J. C. BLACKHAM AND E. F. RANICAR.
<i>C. Travancore</i>	.. {	" W. A. J. MILNER AND C. J. MADDEN.
<i>Coorg</i>	.. "	L. NEWCOME AND J.S.H. MORGAN.
<i>Kanan Devans</i>	.. {	" G. R. STRACHAN AND J. S. B. WALLACE
<i>Mundakayam</i>	..	Mr. W. A. J. MILNER.
<i>Mysore</i>	.. {	MESSRS. L. NEWCOME, G. Q. ARCHARD AND R. C. MORRIS.
<i>Nelliampathies</i>	..	Mr. J. S. B. WALLACE.
<i>Nilgiris</i>	..	Mr. C. I. GREIG.
<i>Nilgiri-Wynaad</i>	..	MESSRS. R. FOWKE AND R. M. GREIG.
<i>Shevaroy's</i>	.. {	" E. H. A. TRAVERS DRAPES AND P. V. BRISCOE.
<i>S. Travancore</i>	..	Mr. R. N. W. JODRELL.
<i>West Coast</i>	..	Mr. H. J. WALMESLEY.
<i>Wynaad</i>	.. {	MESSRS. R. N. W. JODRELL AND I. W. FINLAYSON.

VISITORS.

The Hon'ble Lt.-Col. R. J. C. Burke, Resident in Mysore and Chief Commissioner of Coorg.

L. J. MacIver, Esq., M.A., I. C. S., Commissioner of Coorg.

G. H. Cooke, Esq., I. C. S., Collector of Civil and Military Station, Bangalore.

Mr. A. R. H. Angus.	Col. W. L. Crawford.	Mr. S. P. St. C. Raymond.
Mr. H. Browne.	Mr. G. Kirkbride.	Mr. G. H. Tripp.
Mr. Campbell Gray.	Mr. W. M. Orton	Mr. D. Tweedie.
Mr. P. J. H. Cole.	Mr. E. Rattray	Mr. V. L. Wynyard
Mr. J. H. Cantlay.		Wright.

And the following ladies:—

Mrs. J. C. Blackham	Mrs. C. J. Madden.	Miss Travers
Mrs. H. Browne.	Mrs. W. A. J. Milner.	Drapes.
Mrs. Campbell Gray.	Mrs. A. E. J. Nicolls.	Mrs. D. Tweedie.
Miss Finlayson.	Mrs. C. A. R. Park.	Mrs. J. S. B. Wallace.
Mrs. R. N. W. Jodrell.	Miss Prosser.	Mrs. V. L. Wynyard
Mrs. G. Kirkbride.	Mrs. S. P. St. C. Raymond.	Wright.

First Day, Tuesday, 16th August 1932, 10 A.M.

The Chairman, Mr. C. R. T. Congreve, declared the meeting open and called upon the Secretary to read the notice convening the meeting.

The Secretary then read the notice calling the meeting and also announced that he had received telegrams from absent friends which read as follows:—

Sir Fairless Barber: "Best wishes for a successful meeting."

Mr. J. A. Richardson: "Best wishes for a successful meeting. Hope some form of re-organization will materialise acceptable to our three main products."

Mr. H. Waddington: "Best wishes for a successful meeting."

He also read messages of regret, expressing their inability to attend the meeting, from His Highness the Maharajah of Mysore, His Highness the Yuvaraja, the Dewan of Travancore, the Acting Commissioner of the Indian Tea Cess Committee, the Chairman of the Madras Chamber of Commerce and the Director of Agriculture, Mysore State.

The Chairman:—On behalf of this Association I should like to express our thanks to Lieut.-Col. R. J. C. Burke, Resident in Mysore and Chief Commissioner of Coorg, Mr. G. H. Cooke and Mr. L. J. MacIver who have been good enough to attend this meeting to-day. (Applause).

The Chairman:—The first item on the agenda is the Executive Committee's Report. You have all had copies of this Report, and with your permission, I propose to take it as read.

EXECUTIVE COMMITTEE'S REPORT.

I. THE U. P. A. S. I.

1. Membership.—The number of District Planters' Associations, members of the Association, remains unaltered at thirteen. Since the last report was issued Messrs. Shaw Wallace & Co. were elected members, so the number of Firm Members now stands at twenty-two.

2. Acreage.—In last year's report the acreage subscribing to the U.P.A.S.I. on the 15th June, 1931, was given as a total of 221,660 acres. Owing to alterations in acreages, etc., the actual area which subscribed to the U.P.A.S.I. for the year ending 31st March 1932 was 219,830 acres as is shown in the following table:—

Acreage which subscribed to U.P.A.S.I. on 31st March 1932.

Associations.	Tea.	Rubber.	Coffee.	Cardamoms.	Cinchona.	Pepper.	Total.
Anamallais ..	24,305	..	2,123	2,720	137	..	29,285
C. Travancore..	21,613	..	..	93	..	..	21,706
Coorg ..	415	..	14,067	20	..	..	14,502
Kanan Devans..	30,819	..	565	581	16	..	31,981
Mundakayam ..	2,581	12,497	..	..	..	..	15,078
Mysore ..	2,995	..	16,546	432	..	..	19,973
Nelliampathies ..	622	198	2,291	494	1	..	3,606
Nilgiris ..	9,566	180	2,723	..	..	..	12,474
Nilgiri-Wynaad	12,169	..	3,718	..	..	..	15,887
Shevaroyas ..	..	..	4,563	..	..	..	4,563
S. Travancore..	7,931	14,189	..	..	..	..	22,120
West Coast ..	..	17,347	..	..	..	..	17,347
Wynaad ..	10,919	60	255	..	..	74	11,308
Total ..	123,935	44,471	46,856	4,340	154	74	219,830

Owing to the crisis in the Rubber Industry it is uncertain how many acres of rubber will be able to pay even the nominal subscription of one anna which is to be levied for rubber during the current year. It was hoped that about 20,000 acres would be able to continue to support the Association, but to date the subscribing area only amounts to 4,372 acres. During the current year there is likely to be a decrease in acreage of tea amounting to over 1,000 acres and coffee about 260 acres, though there is an increase under the heading of Minor Products.

3. Executive Committee.—During the year there have been no changes in the Executive Committee, and all the members elected at the time of the last Annual General Meeting are still serving.

4. Meetings.—During the year there were two meetings of the General Committee and four meetings of the Executive Committee.

5. Accounts.—The Budget for 1931-32 allowed for an expenditure of Rs. 4,00,191, and an estimated income of Rs. 3,48,540, so it was resolved to meet the balance of expenditure over income by withdrawing Rs. 52,651 from the Accumulated Funds of the Association, of which Rs. 7,766 was to be considered as a nominal loan to the Rubber Industry to make up for the special remission of subscription. The following statement shows the variation between the original budget and the actual expenditure and income under the main headings:—

EXPENDITURE.

	Budget for 1931-32.	Expenditure 1931-32.	Underspent.	Excess.
	Rs.	Rs.	Rs.	Rs.
U.P.A.S.I. Head Office ..	44,556	44,451	105	..
Political Department ..	13,000	12,000	1,000	..
Labour Department ..	2,44,285	2,39,710	4,575	..
Tea Scientific Department ..	58,380	50,934	7,446	..
Rubber Scientific Department ..	28,630	26,775	1,855	..
Coffee Scientific Department ..	11,340	12,465	..	1,125
Total ..	4,00,191	3,86,335	14,981	1,125

INCOME.

	Budget for 1931-32.	Income 1931-32.	Shortage.	Excess.
	Rs.	Rs.	Rs.	Rs.
Subscriptions ..	67,004	66,805	199	..
Labour Department ..	1,82,285	1,84,434	..	2,149
Tea Scientific Department ..	64,433	62,926	1,507	..
Rubber Scientific Department ..	17,856	16,879	977	..
Coffee Scientific Department ..	8,962	8,450	512	..
Interest ..	5,000	10,160	..	5,160
Sundries ..	2,000	1,183	817	..
From Accumulated Funds ..	52,651	37,714	14,937	..
Total ..	4,00,191	3,88,551	18,949	7,309

The reduced income was due to a smaller acreage subscribing than was anticipated, the reduction of the Rubber Scientific Cess from $3\frac{3}{4}$ annas to 3 annas per acre and the Travancore Govern-

ment ceasing its usual annual grant towards our Scientific Departments. These shortages were more than covered by increased interest on investments. Savings in expenditure resulted in Rs. 14,937 less being taken from Accumulated Funds than had been allowed for.

During the year it was resolved to start a Passage Money Fund crediting that Fund with a fixed amount monthly to cover the cost of passages to employees of the U.P.A.S.I. when they fall due. In order to open this Fund and so as to make it continuous from the dates that each employee last took furlough, a sum of Rs. 7,217-13-4 was taken from the Accumulated Funds of the Association.

6. Work at the Head Office.—The number of letters received during the year was 6,577 and the number despatched 10,737. These figures do not include any correspondence connected with the "Planters' Chronicle." In this connection, everything possible has been done to curtail expenses in office work. Owing to the increase in postal rates this has not been easy, but by carefully regularising dates of posting to regular correspondents, a certain saving has been effected.

7. Provident Funds.—Both the European Employees' Fund and the Indian Employees' Fund have now been recognised by Government as from the 31st July, 1931. At the close of the year, the number of members in the European Fund was 13 and the total of the Fund amounted to Rs. 1,46,227-0-8. In the Indian Fund there were 129 members and the total of the Fund on the 31st March, 1932, was Rs. 40,209-8-0.

8. The "Planters' Chronicle."—Lieutenant-Commander E. L. Hill continued to edit and manage the paper during the year with the satisfactory result of a surplus of income over expenditure amounting to Rs. 903-13-3. A separate report on the working of this paper is being issued for the information of members.

9. U.P.A.S.I. Buying Agency.—This Agency continues to be popular, there being 335 subscribers. The excess of income over expenditure amounting to Rs. 1,286-15-5 was, as usual, transferred to the credit of the Southern India Planters' Benevolent Fund.

II. AFFILIATED ASSOCIATIONS

1. The South Indian Association in London.—We have continued to receive assistance on all matters in which the Association was concerned at home from this Association. Mr. J. R. H. Pinckney has been elected Chairman for the current year.

2. The Rubber Growers' Association.—The Rubber Advisory Committee of the United Planters' Association of Southern India has continued to act as the South Indian Branch of the Rubber Growers' Association.

3. The Indian Tea Association.—The U.P.A.S.I. and the Indian Tea Association have been working in close co-operation with each other on all matters which affect both Associations.

This mutual work has been particularly pronounced during the past year in connection with the British Import Duty on Tea and the Preferential duties on tea within the Empire generally as will be seen under those headings in this report.

4. The Indian Tea Cess Committee.—Mr. J. S. B. Wallace has continued to be the Association's representative on the Indian Tea Cess Committee. Lately that Committee have agreed to a proposal that a Sub-Committee should be appointed in South India with whom the Tea Cess Superintendent of South India should work in conjunction, subject of course to the understanding that the Superintendent continues to be under the direct control of the Commissioner in Calcutta. This Committee is being formed and it is hoped that this first meeting will take place before the Annual General Meeting and that it will lead to a closer co-operation and a better understanding between South Indian Planters and the work of the Indian Tea Cess Committee in South India.

III. LEGISLATION.

1. Planting Member.—Mr. F. E. James, M.L.C., returned from leave in England in time to attend the 1931 Annual General Meeting at Bangalore and was also re-elected to the Legislative Council, attending their opening session in August.

2. The South Indian Planting and Commercial Representation Fund.—Mr. James' contract with the U.P.A.S.I. was transferred to this organisation as from 1st November 1931 and the U.P.A.S.I. contribution fixed at Rs. 1,000 per month payable from 1st April, 1931.

3. The Madras Motor Vehicles Taxation Act.—Immediately after the conclusion of the Annual Meeting, Mr. F. E. James took up the question of the taxation of motor vehicles in the Madras Presidency, and a representative Committee was appointed in Madras to collect information.

After six months' hard work, Mr. James was successful in getting a Bill passed by the Government of Madras amending the Motor Vehicles Taxation Act of 1931, resulting in the injustice of the tax on motor vehicles used solely for Estate purposes on private roads, being removed. Thus any car or lorry laid up and in garage or only using private roads is exempt from payment of tax under these conditions.

With regard to approaching Government concerning a tax to be levied on non-mechanical vehicles, there are great difficulties as, it is understood, the Minister is strongly against this procedure, but support from the various Chambers of Commerce in the Mofussil is now being solicited with a view to urging upon Government the necessity of including non-mechanical vehicles in the Registration and Taxation Scheme.

Full details of the Amendment to the Act and progress made have been reported in the "Planters' Chronicle" from time to time especially in the issues of October 10th, 1931, April 9th and June 4th, 1932.

4. Franchise Committee.—Mr. F. E. James served as a member of the Provincial Franchise Committee in January, February and March and gave evidence on behalf of the Europeans in the Presidency before the Indian (Lothian) Franchise Committee during their visit to Madras, in connection with the new proposals for Franchise reform in India. Several very useful opinions were collected by Mr. James from various District Planting Associations, to whom a questionnaire had been sent, and the report of the Lothian Committee was published during the first week of June.

5. Workmen's Compensation Act Amendment Bill.—The views of the U.P.A.S.I. on the subject of Employers' Liability, under the Workmen's Compensation Act, were requested by the Government of India in February last, and in March Mr. James drew up a summary of this Bill which had been introduced by Government in the Assembly. This summary was circulated to all District Associations in British India asking for their comments, some of which proved to be of great assistance. In the Association's reply to the Government of Madras on this subject, it was stated that the extension of the Bill to Planters was deemed to be unnecessary as they already had their own welfare and benefit schemes. Should the principle of the Act be extended however to Plantations, reasons were submitted why all Plantations should be included and not only those employing 50 men or more.

6. Bill for Establishment of Crop Markets.—The aims and provisions of this Bill for the establishment and better regulation of Markets for commercial crops in the Madras Presidency were circulated to all District Associations for their opinion on the matter and the subject was also fully considered by the Executive Committee.

The Planting Member was thereupon instructed to reply to the Deputy Director of Agriculture, stating that the views of this Association were that there did not appear to be any considerable demand for this legislation from the main interests concerned in the Presidency, also that the U.P.A.S.I. did not consider the increased expenditure the Bill would involve, justifiable. Various suggestions were also put forward to amend the various clauses of the Bill and the Planting Member will speak on behalf of the Association should the Bill be introduced into the Legislative Council.

IV. DUTIES AND TAXES.

1. Income-tax on Rent Free Quarters to Indian Staff.—The Association's proposals fixing the rental value of the quarters occupied by Labour suppliers and the subordinate staff have been accepted by the Commissioner of Income-tax, Madras, as follows:—

- (a) Labour Suppliers .. Re. 1 per mensem per room.
- (b) Employees who draw salaries
up to Rs. 199 per mensem
Rs. 4 per mensem

- (c) Employees other than Managers
and Assistants drawing over

Rs. 200

Rs. 6 per mensem per room.

With regard to Bungalows, the rental value of Managers' and Assistants' quarters is Rs. 40 and Rs. 20 per mensem respectively in the Nilgiris District and Rs. 35 and Rs. 15 in other Planting Districts.

2. Copper Sulphate.—The question as to whether this product, when used for agricultural purposes, should be exempted from customs duty was taken up by the Planting Member during the year. The European Member for Madras in the Assembly raised the question during the discussion on the Heavy Chemical Industry (Protection) Bill, but without success. Subsequent representations have also failed so far, so that the present position is that this commodity has to pay a duty of Rs. 3-12-0 per cwt. In the meantime, however, information has been received of the projected manufacture of copper sulphate in India, and if these plans mature, it is expected that present prices may be reduced. Fortunately, there has been a considerable fall in the price of the imported article during the year.

3. Import Duty on Medicines and Drugs.—The Planting Member after exhaustive enquiries is satisfied that there is not the slightest possibility of obtaining any rebate of duty on account of medicines and drugs distributed free of charge to estate labour. Such an arrangement, as experience has previously proved, would lead to serious leakages and abuse.

V. COMMUNICATIONS.

1. Pollachi-Vanathorai Railway.—In spite of the strongest representations made by this Association, backed up by the Chambers of Commerce, Madras, Calicut and Coimbatore, the Deputy Director of Railway Board, New Delhi, has advised us that, owing to the present financial stringency, there is no likelihood of this line being constructed nor is it possible to foresee when funds will be available for the purpose.

2. Cochin Harbour Development Scheme.—The Planting Member represented the U.P.A.S.I. at the Conference held in Madras in August last when the fourth stage of the Cochin Harbour Development was discussed. The provision of the metre gauge connection from Kollengode to Trichur and thence Vendurthi was not acceptable as the Government of India would not consider outlay for the money required but a resolution was drafted and sent to Government for consideration. So far as jurisdiction of the port was concerned, Government intervention will be necessary as a deadlock occurred between the three provincial Governments interested.

3. Nelliampathy Ghat Road.—The Planting Member, after enquiring fully into this question, regarding grants for the proposed Ghat Road, is at present engaged upon the matter "de novo" with the new Secretary to the Self-Government Department.

Freights.

1. **Shipping Freights.**—The Malabar Coast Conference Lines announced a reduction in their surcharge on freights from 10 per cent. to 5 per cent. as from the 1st November, 1931.

VI. GENERAL.

1. **Discount on Cheques.**—The Bank of Mysore were again approached and asked to reduce their charges for discounting estate cheques made payable and credited to the account of the U.P.A.S.I. Labour Department, Mysore. It was also pointed out to them that the high commission charged on cheques generally did not encourage the cheque habit, but the Bank replied that their charge of 1/8 per cent. with a minimum of annas 4 was not excessive and regretted no further reduction could be made.

2. **Estates Staff Association of South India.**—The question as to whether this Association would receive recognition from the U.P.A.S.I. was put forward by them and after all D.A.'s had been circularised for their opinion, the Executive Committee passed a resolution on the 28th October, 1931, stating that they were in favour of recognising the Estates Staff Association, who were advised accordingly.

3. **Tung Oil Seed.**—Another consignment consisting of 240 lbs. of this seed was kindly forwarded for distribution to members of the Association by Captain H. F. Carey of Shanghai. There was again a great demand for the seed for experimental purposes and all supplies were exhausted by February 1932.

4. **Roll of Honour—Planters who fell in the Great War.**—Effect to the resolutions passed at the 1925 and 1926 Annual General Meetings not having been carried out, the Secretary was instructed in January 1932, to carry on with these proposals. A suitable design for the Memorial was submitted by Barton Son & Co. of Bangalore and duly approved, after which the necessary sanction to have it placed in St. Stephen's Church, Ootacamund, was obtained and all legal formalities in this connection completed. It is anticipated that the tablet will be completed and placed in the Church very shortly.

5. **The Late Mr. Fletcher Norton.**—It was suggested by many old friends of Mr. Norton that it would be fitting to inaugurate a fund for the purpose of erecting and endowing a tombstone over his grave in Bangalore. This proposal was duly approved by the Executive and subscriptions collected with the result that a design in Italian marble with suitable inscription executed by Snaize Bros., Bangalore, has been ordered.

6. **Food Adulteration Act.**—The Mysore Chamber of Commerce have actively taken up the question of having the provisions of this regulation extended throughout the State of Mysore and for the specific inclusion of Coffee and Tea within its provisions. Several members of this Association have kindly supplied the Mysore Chamber of Commerce with samples of Tea to assist them in proposing standards to be fixed.

VII. TEA.

1. **South Indian Tea Crop, 1931.**—The following statement shows the crops of Tea from each district during the year:—

	Lbs.
Anamallais	10,976,328
Nilgiris	4,958,821
Nilgiri-Wynaad	5,012,041
Wynaad and Malabar	5,972,147
Cochin	53,371
Coorg	174,362
Mysore	296,014
Central Travancore	10,733,917
Mundakayam	869,995
Kanan Devans	13,740,251
South Travancore	2,786,131
Total ..	55,573,378

2. **Consumption of Tea in Southern India.**—The figures received from the ports of the Presidency and Travancore show that during 1931 the total exports were 49,223,185 lbs., which would leave a remainder when compared with figures of production of 6,350,193 lbs., consumed in this country. The following table gives the production and apparent local consumption for the past eleven years:—

	Production Lbs.	Local Consumption Lbs.
1921	31,399,000	4,000,619
1922	36,231,287	6,713,366
1923	43,538,648	6,321,706
1924	46,161,408	8,207,006
1925	47,975,955	4,027,107
1926	51,065,004	6,662,284
1927	52,387,595	4,773,551
1928	55,760,603	7,113,469
1929	58,517,586	6,233,341
1930	53,802,044	6,364,635
1931	55,573,378	6,350,193

3. **Imitation and Adulterated Teas**—A Conference was held at Guindy, Madras, on the 12th September, 1931, between the Director of Public Health, the Public Analyst, Mr. F. E. James, Mr. Orton (I.T.C.C. representative) and Col. Brock. The Planting Member subsequently issued a report on the results of the Conference in which he stated the warm support and energetic co-operation of the Director of Public Health was assured, in representing to Government the present inadequacy of the working of the Act and asking them to accord more facilities to the Inspectors of the I.T.C.C.

4. Tea Import Duty.—On the advice of the Planting Member, it was considered inexpedient to urge the Government of India to increase the present import duty on Tea into India and he suggested we should await the decision of the British Government regarding the introduction of a duty on all teas with a preference for Empire produce.

5. S. I. Tea Propaganda—I. T. C. C. Scheme for use of S. I. Tea Bulk in Bangalore.—The I.T.A., Calcutta, after being informed of the resolution passed at the Annual Meeting to the effect that propaganda in India should not be hampered for lack of funds, replied that Rs. 1¼ lakhs provisionally reserved for packing and bulking factory, had since been allotted for propaganda purposes instead. A certain number of estates in response to a wire from the I.T.C.C. stating they were prepared to buy 6,000 lbs. Broken Pekoe monthly, responded and supplied tea for bulking in Bangalore, but the supply was not equal to the demand owing to orders from Home companies to their estates, to the contrary. Various District Associations having expressed dissatisfaction at the lack of co-operation between the I.T.C.C. and the producers, the former were again approached regarding the formation of an Advisory Sub-Committee to be appointed by the U.P.A.S.I. who would work in conjunction with the I.T.C.C. Superintendent in South India, the latter of course remaining under the direct control of their Commissioner in Calcutta. As mentioned before, the I.T.C.C. Calcutta Executive have now agreed to our proposal.

6. British Import Duty on Tea.—Shortly after the last Annual General Meeting, a cable from the South Indian Association in London was received asking our Association to immediately take up with the Government of India, the desirability of their urging the Chancellor of the Exchequer at Home, to impose a duty of 6d. per lb. on all Tea with a rebate of 2d. per lb. on Empire Grown Tea, in view of the serious state of the Tea Industry and the unfair competition it had to meet from foreign teas. The support of the Madras, Cochin, Travancore and Mysore Governments was obtained by the various Planting Members and eventually the Government of India forwarded their opinions to Home Government, but gave very little active support to this most important question. As is now well known, the effect of the representations made resulted in the Chancellor of the Exchequer granting the minimum preference of 2d. per lb. asked for.

7. Empire Grown Tea.—An intensive campaign was launched by the Tea Producers of India and Ceylon, to bring Empire Tea before the notice of the public and increase its sale. The large distributing houses and retail grocers at Home warmly co-operated with the result that packets of tea, guaranteed to be Empire Grown, were soon available to the British public. The demand for Empire grown teas was stimulated to a remarkable extent and the "Buy British" slogan was very successful throughout the whole country in persuading the public to buy Empire Produce of every kind.

8. Post Office Regulations Regarding Tea Samples.—On the 6th May 1932, the Postmaster-General announced that arrangements

had been made with the Customs Authorities whereby *bona-fide* trade samples of tea might be imported by sample post and delivered without reference to the latter under the following conditions:—

"Each packet must not exceed 8 ounces in gross weight, and must be plainly marked as containing tea. Any packet of less than 3 ounces in gross weight will be delivered free of charge for Customs Duty; but each packet of which the gross weight is 3 ounces or more (up to the maximum of 8 ounces gross) will be charged at a flat rate of 1d. for Customs Duty, which will be collected on delivery. Sample packets, containing tea, not complying with the conditions mentioned above, will be referred to the Customs Authorities."

9. Imperial Preference Duties on Tea.—This Association supported strongly the representations made by the Indian Tea Association for Government support in obtaining Imperial Preference from Australia, South Africa, etc., for Indian Tea. The Madras Government also supported these representations and the I.T.A. deputation interviewed Sir Joseph Bhone on the 28th May, and it is hoped that the question of preferential duty from these countries will be considered at the Ottawa Conference to be held in July.

VIII. COFFEE.

1. Southern India Coffee Crop.—In the last report figures were given for the past eleven years' crop taken from the Indian Coffee Statistics, issued by the Director-General of Statistics, Calcutta, who compiles his figures for the period 1st July to 30th June for each year as follows:—

	<i>Lbs.</i>
1919-1920 ..	21,325,035
1920-1921 ..	22,453,659
1921-1922 ..	20,487,926
1922-1923 ..	25,459,428
1923-1924 ..	10,145,403
1924-1925 ..	30,457,644
1925-1926 ..	22,106,717
1926-1927 ..	34,281,995
1927-1928 ..	35,563,321
1928-1929 ..	27,758,633
1929-1930 ..	39,423,908
1930-1931 ..	32,972,967

2. Consumption in India.—As mentioned above the production year of coffee is reckoned from the 1st July to 30th June, and the account of exports given in the Annual Statement of the Seaborne Trade and Navigation of the Madras Presidency is for the official year 1st April—31st March. It is difficult, therefore, to make an exact comparison, but the total production for the last five years exceeds the amount shipped by 4,170 tons per annum.

3. Germany Coffee Imports.—The question of whether Coffee exporters from India should deal only with the German Coffee Commission, Hamburg, and not with individual Traders inland, was referred to South Indian Exporters who reported they were well able to look after their own interests and found it more satisfactory to deal through their own Home offices with most inland towns.

4. Coffee Shipments of Nilgiri Plantation.—Curing Firms and Branches reported they were all in favour of putting a stop to the practice of shipping coffee from other districts under the description of Nilgiri Plantation, and suggested that the various Coffee District Associations should register their own trade marks through a Chamber of Commerce, such as Madras, in which case they would be protected from unscrupulous shippers as, under the provisions of the Indian Merchandise Act, Section 6, such offenders would render themselves liable for prosecution for infringement of the trade mark.

5. Coffee Sizing and Curing.—The majority of Curing Firms consider it impracticable to standardise the size of sieves for particular markets, particularly as when curing is in progress it is not always known what the ultimate destination will be. The suggestions made in the Economic Report on Coffee are not really applicable to Coffee from South India and any change would be more likely to upset the present trading conditions as the sizes of South Indian Coffee are thoroughly well known to the importers who handle it.

6. British Import Duty on Coffee.—At the request of the Coorg P. A., we approached the South Indian Association in London for their views regarding the possibility of the British Government granting a Protectionist Duty on Coffee. The South Indian Association replied stating that there was already a preferential duty given to Empire produce of 2½d. per cwt. on coffee not kiln-dried and 1½d. per lb. on kiln-dried, roasted or ground coffee, and coffee and chicory, roasted and ground, mixed. Owing to the 1½d. per lb. preference being practically a negligible concession, we have again approached the S.I.A. asking what chance there is of a greater degree of preference being granted and if it will be possible to include this matter for discussion at the Ottawa Conference.

7. Empire Marketing Board for Coffee.—All Coffee District Associations have been asked for their views on a suggestion made by the Coorg P.A., that a cess of annas 7 per acre should be levied, in order to raise £1,500 required to participate in an advertising scheme conducted by the Empire Marketing Board for the propaganda of South Indian coffee as an Empire product. So far the replies received have not been entirely in favour of such a scheme.

IX. RUBBER.

1. Production in Southern India.—From figures supplied to the Association from the ports of shipments, the following state-

ment shows the export of rubber from South India from 1923—1931:—

		<i>Lbs.</i>
1923	..	8,411,018
1924	..	10,151,636
1925	..	13,950,915
1926	..	14,628,915
1927	..	16,042,831
1928	..	16,823,761
1929	..	17,222,790
1930	..	15,595,518
1931	..	10,922,602

The production statement compiled by the Director-General of Commercial Intelligence and Statistics gives the production in respect to South India as follows:—

	Production as per Indian Rubber Statistics.	Shipment of Rubber from South India.
	<i>Lbs.</i>	<i>Lbs.</i>
1927	14,682,264	16,042,831
1928	15,946,913	16,823,761
1929	16,852,657	17,222,790
1930	14,392,301	15,595,518

2. Remission of Rubber Assessment.—In spite of the strongest representations made to the Madras Government by Mr. James, they definitely turned down this Association's request for a remission of assessment on Rubber lands and issued a G.O. to that effect on the 21st December 1931, stating that they were unable to grant special treatment to rubber cultivation. The Travancore Government however reduced Rubber land assessment from Rs. 2 to Re. 1 and the Cochin Government on the 8th January reduced assessment from Rs. 2 to Re. 1 per acre and from Re. 1-8-0 to Re. 1. Where assessment is less than Re. 1, there will be no reduction.

X. SCIENTIFIC DEPARTMENTS.

TEA.

1. Staff.—Dr. W. S. Shaw, Tea Scientific Officer, proceeded on six months' furlough on 4th May, 1932, and in his absence, the Assistant Tea Scientific Officer, Mr. K. B. W. Jones, is in charge, his agreement having been renewed for a further period of four years from November 1931.

2. Tea Scientific Department Sub-Committee.—In accordance with the resolution passed at the Annual General Meeting that the administration of the Tea Scientific Station should be in the hands of the Senior Scientific Officer working in conjunction with the Sub-Committee to be appointed, the latter held several meetings and the whole question of touring, personnel and a 4 years' programme was decided upon. Estimates for the continuance of the Tea

Scientific Station had been provided for whereby the tea cess for any year for this purpose will not exceed six annas per acre, and for the present year the budget proposals only called for a cess of four annas.

3. Work at the Tea Experimental Station.—The Scientific Officer is reporting fully on the work of the Station in his Administration Report for the year.

4. Scientific Department of the Indian Tea Association.—An arrangement was concluded with the Indian Tea Association, Calcutta, whereby the latter agreed to the discontinuance of our affiliation and subscription to Tocklai as from the 1st April, 1932, owing to necessity for economy.

5. Tocklai Course of Lectures.—The Scientific Department of the Indian Tea Association placed one seat for the "Seniors" Course, commencing on 18th January, 1932, at the Association's disposal, and again one seat for the "Seniors" Course commencing on the 4th July, 1932, but it was not found possible for any Planters in South India to attend.

COFFEE.

1. The Coffee Scientific Officer.—Mr. W. W. Mayne has continued to work at the Balehonnur Coffee Station, under the direction of Dr. Leslie C. Coleman, Director of Agriculture, Mysore. Mr. Mayne is due to go on leave this year, but the Executive Committee agreed to his proposal that he should postpone his furlough for 6 months. An Assistant Scientific Officer, Mr. V. K. Subramaniam, was appointed to work under Mr. Mayne at the Sidapur Station, especially in connection with work on Cockchafer and Mealy Bug. Mr. Mayne personally installed and started him on his duties in January, 1932. Mr. Mayne also visited the Nilgiri-Wynaad early in the year.

RUBBER.

1. Staff.—Mr. R. A. Taylor remains in charge of the Rubber Experimental Station, Mundakayam, on a month to month agreement, owing to the station being reduced to a care and maintenance basis. Mr. Taylor is prepared to stay on indefinitely on these terms of notice until he can get another billet and the Rubber Advisory Committee has approved of this procedure.

MADRAS,
10th July, 1932.

C. R. T. CONGREVE,
W. A. J. MILNER,
R. N. W. JODRELL,
A. E. J. NICOLLS,
H. J. WALMESLEY.

THE CHAIRMAN'S ADDRESS.

The Chairman then delivered the following Address:—

GENTLEMEN,

Since I had the honour of addressing you last year from this chair, times have not improved, in fact at the present moment both the tea and rubber markets are in a worse position than they were then, and there appear to be very few indications of any improvement likely to occur in the immediate future. The whole world position is as bad as it can well be; it seems to me that until such time as the countries of the world can come to some mutual arrangement for cancelling the weight of debt incurred during the war, or at least to agree to a moratorium extending over a long period, there is little hope of any material improvement in the position, and until some such improvement does occur, we cannot expect to see any marked advance in the prices of tea or rubber, as with taxation at its present high level the necessary funds to purchase such products as ours must be limited.

A small ray of hope appeared when the British Government imposed a preferential duty on Empire tea, and whilst for the moment this has not improved matters, visibly at any rate, it is to be hoped that when the stocks of tea which were rushed to the London market to forestall the duty are absorbed, a more healthy outlook may result.

The Ottawa Conference is now sitting, and if some form of Empire Preference can be agreed upon, it seems possible we may see tea and rubber selling at a price which will at least be above the cost of production. It must be remembered, however, that no preference or subsidy can save an industry permanently and that it can at best only be a temporary help. To the ordinary man in the street it would seem easy to arrive at some agreement between the various nations belonging to our Empire, whereby preferential duties can be levied. The Empire can be entirely self-supporting, and in a position to produce every commodity and to manufacture every article required by its people, and if Empire preference can be established we ought to see a great improvement in the price of all commodities, and a closer union if possible between the various nations who form the component parts of the great Empire to which we all belong. It is to be hoped that the results of the Conference will go far to restore confidence in the markets of the world, and alleviate the terrible depression from which trade has been suffering during the past several years.

It has probably been forgotten by many planters that in the year 1900, this Association passed a resolution to communicate with Planting Associations, all Chambers of Commerce in the Empire and all leading firms and Merchants and Brokers interested in tea and coffee, in India, in England and her colonies, with a view to ascertaining whether they were in favour of a combination of Great Britain, her Colonies and India, to afford protection to British grown products and manufacturers by means of a system of preferential duties. In the following year it was recorded that a very large number of favour-

able replies had been received from Chambers of Commerce and others throughout the Empire, and it is interesting to note that amongst those letters was one received from the President of Board of Trade of the City of Ottawa, which body was strongly in favour of steps being taken for the protection of interests throughout the Empire. This policy of the Association was re-iterated in further resolutions passed practically every year from 1901 to 1909, and in 1910 another special resolution was passed, embodied in the form of a creed, affirming why the Association believed that British grown products including coffee, tea, rubber, cinchona, cocoa, cotton and wheat would be benefited by a system of preferential tariff. This resolution was again communicated to all Planting Associations and Chambers of Commerce throughout the Empire and also to all Members of Parliament and of the Legislative Councils throughout the Empire. Again, in reply to this, a very large number of favourable answers were received. I believe I am correct in saying that Mr. Joseph Chamberlain was the originator of the policy of Imperial preference and he made many speeches in support of it about 1896, and our Association has felt that, as was expressed by one of our Chairmen, its efforts may be compared to the fly on the wheel which helped it to revolve.

The Indian Tea Cess Committee continue to carry on their intensive advertising campaign for the consumption of tea. During the year under review, their Executive Committee have agreed to the formation of a small advisory committee in South India to co-operate with the Tea Cess Commissioner, and I look forward to far reaching results from the work of this Committee. Many of you will have seen Mr. J. Still's report on the sale of tea in America and Canada, and will have drawn your own conclusions. I mentioned last year the hope that some agreement might be come to between India and Ceylon whereby a mutual intensive advertising campaign could be inaugurated for the consumption of tea in America and elsewhere, but to-date nothing appears to have materialised. To my mind such a campaign properly run, with ample funds available, would prove of enormous value to both countries, and I still hope that ere long something may be done in this direction. The Industry has got to find new markets and therein lies its salvation.

The total prohibition of the import of raw coffee into this country has had a distinctly useful effect on local prices, and at the present time the Indian market for coffee seems to be in a more healthy condition. Stephanoderes Hampei, though proved to exist in various districts in South India, is not as far as can be ascertained spreading to any extent, due in large measure to the careful steps taken by the Mysore Coffee Scientific Officers, and it seems probable that, granted the continued prohibition of the import of raw coffee, we may be able to keep this very dangerous pest in check. Our repeated thanks are due to the Government of India, to the Governments of Madras and Mysore, for taking such prompt steps to stop any chance of the disease being again imported, as, had it got a real hold in this country, it is almost certain the cultivation of coffee would become a thing of the past within a very few years.

There appears to be nothing good to say about the present position of the rubber market, present prices making it impossible for even the most carefully run estate to meet expenditure. Tapping operations on most rubber estates in South India have now been stopped, and estates are for the most part on a purely maintenance basis. Unless some improvement in the price of this commodity takes place in the very near future, it seems certain that the industry in South India must be doomed, and the very large capital invested in it, lost. Despite the work constantly being done by competent Engineers and Road authorities in trying to adapt rubber for surfacing roads, no satisfactory system appears yet to have been evolved and it almost looks as if the problem were beyond solution.

When talking about the planting industry in India, people generally refer to it as if it were entirely European owned; but this is a great mistake. There are a large number of Indian owned estates, both tea, coffee and rubber, and with coffee, the acreage owned by Indians is far larger than that owned by Europeans. Again large sums of Indian capital are invested in European Companies especially rupee ones, and it must be remembered that the Planting Industry employs nothing but Indian labour. Further the work done by the Industry for the good of the country has been and is incalculable, as it has converted many square miles of impenetrable forest and uncultivated land into well ordered estates, which give remunerative employment to many thousands of Indians, who might otherwise swell the ranks of the unemployed in the villages. It must also not be forgotten that the Governments of the country obtain largely increased revenues from land taxes, cesses and income-tax as the result of the planting industry in India.

The Executive Committee and our Secretary have continued to study every possible form of economy during the past 12 months, and it is satisfactory to note that despite the very drastic cuts made in the Budget last year, there have been small savings under several heads, notably in the Labour Department, where a saving of Rs. 2,700 was effected. While it is essential to work as economically as possible, it must be realised that if expenditure is reduced beyond a certain point, efficiency is bound to suffer, and Col. Brock has sounded a note of warning in his report as Director of the Labour Department which merits your most careful consideration. I personally consider that it is too much to expect one man to do the work of Secretary and Director of the Labour Department efficiently, and am of the opinion that when times improve, if that efficiency we have all come to expect in the running of our affairs is not to be reduced, it will be necessary to re-consider the whole question of our staff. Consistently to over-work anybody, however willing, cannot in the long run prove economical.

Turning to this season's budget which was passed by the General Committee in March last, the South Indian Association in London suggested that a sum of Rs. 60,000 required to make up the Labour Department subsidy should be taken from the accumulated funds. After careful consideration the Executive and General Committees

did not agree to this, chiefly because they considered the then price of both tea and coffee made it possible for estates to pay the cess, and therefore felt that the reserves should be kept till times got worse. Since then we have experienced a heavy fall in the value of tea, and I would ask you carefully to consider whether the time has not now come to re-consider your decision and agree to meet the Labour Department subsidy, or if coffee does not agree, to pay the cost of the Tea Scientific Department from the reserves. The question is on the agenda and will doubtless receive your most careful consideration.

Since our last meeting the second Round Table Conference, with Mr. Gandhi representing the Congress Party, sat in London and this was followed by special committees who came to this country to work out the various details connected with the new constitution. Mr. James, who is here to-day, will doubtless deal very fully with the present situation. I think there can be no doubt that before very long now we shall see Provincial Autonomy a *fait accompli* in the provinces of this country, and it behoves us land-owners to co-operate to form a strong political organization which, while ready and willing to work in close union with the central and provincial governments, will be in a position to make its weight felt when necessary. Already we have a political organization in Madras supported by most of the large European Commercial and Trading Companies as well as by the U.P.A.S.I.; but it must be remembered that to keep this organization up to the standard required involves considerable cost, and I trust that, come what may, none of the parties interested will allow it to be starved for lack of these funds. It appears to me to be of the utmost importance to the continued well being of the vast interests involved that our Madras political organization be kept up in as efficient a manner as possible. The European Association continues to do good work on behalf of the whole European Community in India, and every single British man or woman ought to belong to this organisation which has proved its value in the past, and will continue to do so in the future if properly supported.

The past 12 months have seen H. E. The Viceroy and his Government taking a strong attitude as regards the revolutionary organisations, which were becoming such a menace to this country, as also the civil disobedience and non-co-operation movements which were rapidly reducing this country to the brink of bankruptcy. I feel sure I but voice your sentiments in congratulating H. E. the Viceroy, and his Government on the steps they have and are taking, and in hoping that, whilst ready and willing to listen to any real request for co-operation on sound lines by the Congress or other parties, they will continue to take the necessary steps in the future to ensure peace and quiet in this vast country, without which any real progress in self-government cannot take place or prove of any value to anybody. Despite the measures taken by Government to stop terrorism, murders of Government Officials and others in North India continue to take place, and it seems to a mere on-looker that some more drastic action is called for to put a stop to such conditions and to ensure the life and safety both of officials and private persons. That ordinary people should have to go to their work armed with

revolvers, and that it should not be safe for ladies to be left alone unarmed in Bengal and elsewhere in the North, sounds more like the bad old days than 1932, and some very drastic alteration is required in the methods adopted to put an end to this state of affairs.

As a result of the Whitley Commission Report, the Government of India are considering various bills for the betterment of labour conditions in this country, but why estate labour should be specially picked out for this purpose it is difficult to understand. It is proposed to extend the provisions of the Workmen's Compensation Act to estate labour; but apparently, though estate labour must form an almost infinitesimal percentage of the labour employed on agriculture in this country, no other agricultural labour is to be, at present anyhow, brought under the bill. I believe I am correct in stating that it is recognised that labour on estates is as well or better cared for than other agricultural labour in India. Every sort of benefit is provided free by the majority of estates, such as excellent housing, maternity benefits, medical attention by competent Medical Officers, welfare work, free food for the children and sick, etc. If, however, the Government are going to insist on the Workmen's Compensation Act being extended to ordinary estate labour, with probably other ordinances to follow, it appears to me probable that Employers may find themselves unable for financial reasons to continue to expend the very large sums of money voluntarily that they have spent during the past several years for the benefit of their labour forces. Anybody, who has been planting for the past 20 years or more, will agree that the improvement in amenities for estate labour has been enormous, but if we are to suffer direct interference by Government through legislation between the employers and employed at certainly considerable cost to the employers, the ultimate result will, I maintain, prove detrimental to the well-being of labour, and I would ask Government to pause, and carefully consider the point in all its bearings before they start to pick out for special legislation one of the agricultural industries in this country which has the well-being of its labour at heart.

The Madras Motor Vehicles' Act continues to bear most unjustly on a small proportion of the users of the public roads. Owing largely to the work of our representative on the Legislative Council, certain amendments have been passed which may prove to provide some alleviation for the grossly unfair taxation we are labouring under at present; but though there have been many public meetings of protest, and though all sorts of bodies have protested against the continued immunity of bullock carts from any sort of taxation, nothing has been done, with the result that our roads are daily becoming more and more congested by strings of country carts, all heavily loaded, and doing enormous damage to their surfaces without paying any kind of taxation. From all accounts Government are finding the amount collected from Motor Vehicles is entirely inadequate to cover the cost of road maintenance, and in an article in the "Madras Mail" I recently read that less than half the anticipated amount had been realised, and that the year's revenue had only been Rs. 29,69,073 against the sum of Rs. 69 lakhs which was estimated would be obtain-

ed when the tax was first introduced. The present taxation by the Central Government and the Local bodies is rapidly reducing those firms interested in the motor trade, as well as the unfortunate owners of motor lorries and buses to bankruptcy; yet nothing of real benefit in the way of reduction of taxation seems to be done, and the enormous potential income which could easily be obtained through the taxation of country carts is allowed to continue uncollected. Though it is recognised that the country cart, carrying as it does very heavy loads on tyres much too small, does more harm to the road surface than almost any other type of vehicle, yet no form of taxation to compensate Government for this damage is levied, and all representations so far made have fallen on deaf ears. Unless something is done ere long, not only will a large number of firms and individuals be ruined, but the roads will become so bad, due to lack of sufficient money to keep them in order, that the cost of re-making them will be prohibitive, and they will degenerate into a state more suitable for the dark ages than modern times, with roads along which it is impossible to travel except in springless carts or on horses.

Due to financial stringency, all new railway construction has been stopped in South India, and the much needed feeder railways between the Cochin Harbour and the planting districts still remain to be constructed. Last year I mentioned the metre gauge line between Palghat and Trichur to join up with the new line from Pollachi to Palghat, the extension from Pollachi to Vananthorai, the line up the Kumbum valley from Bodinayakanoor, and the line through the Wynaad to join up with the Mysore Railways. All these are of great importance to our community, but I fear that until times improve there is no likelihood of any new construction being undertaken.

At the last Annual Meeting a considerable vote was recorded against the continuation of the Tea Scientific Station, but I am glad that a sufficient majority was obtained to enable this station to continue. A small sub-committee of the Executive Committee was inaugurated to work in conjunction with our Senior Scientific Officer, and as the result of their work and co-operation in the current year, whilst our staff has been augmented by two Indian Scientific Officers, the cost has been decreased to annas four per acre of tea. Dr. Shaw is at present on leave and the Station is in charge of Mr. Jones. A programme for extended touring by the senior officers has been inaugurated and arrangements made for future tours by Dr. Shaw and Mr. Jones, whilst the Indian Officers are to be detailed to live in Peermade, Nilgiri-Wynaad, or elsewhere, for such periods as may be found necessary to make intensive studies of certain pests and diseases, which are very adversely affecting tea over considerable acreages. It will be for this meeting to confirm the suggested arrangements, and for the new Executive Committee to carry them out, and I hope nothing will be done to alter the very friendly relation now existing between our Scientific Staff and the Sub-Committee, as I am certain that with the closer co-operation that has been made possible during the past 12 months, results quite beyond anything so far achieved can be anticipated, and our staff, whose work deserves

the highest appreciation, will do their very best to work on such lines as may be decided for the betterment of the tea industry.

It will be remembered that in the last budget the subscription paid to the Indian Tea Cess towards the cost of their Tocklai Station was discontinued. This subject is on the Agenda for discussion at this meeting, a resolution having been tabled to continue the contribution; and doubtless this resolution will receive your careful consideration. I would mention that to-date this Association has already subscribed a sum of Rs. 72,500 to Tocklai Station. It appears to me that, whilst all Scientific Stations studying particular products such as tea should co-operate and give each other the benefits of their experience and work, it should be unnecessary for any one station to subscribe to any other. If the Tocklai Station, the Ceylon Research Institute, or our Tea Station agree to work for the mutual benefit of all tea planters in India and Ceylon, and so far as is possible to co-operate, it seems to me that the value of their work will be enormously enhanced for the good of everybody.

The Coffee Scientific Station in Mysore continues to do good work for all Coffee Planters, and we are much indebted to H. H. the Maharaja of Mysore for his public spirited action in starting the Station and allowing our Coffee Officer, Mr. Mayne, to work in close co-operation with the Mysore staff. Dr. Leslie Coleman continues as head of the Mysore Agricultural Department, and his help and co-operation in everything to do with planting is too well-known to need comment by me. Excellent work on many different lines is being done at Balehonnur, and the study of leaf disease which is engaging the continued attention of Mr. Mayne will, I hope, when completed, go far towards eradicating this most pernicious disease. Our staff has been augmented by an Indian Entomologist who is now in South Coorg studying various pests there. It is to be hoped that eventually some preventive to diseases as Borer, Mealy Bug, etc., may be found as the result of his work.

The Rubber Station still continues on a much reduced scale, but it seems almost certain it will have to be closed down owing to financial difficulties. It will be very regrettable if this should have to be done, as Rubber led the way in inaugurating its own scientific station and proved conclusively the great value to be obtained from a well found and well run station.

During the past 12 months, there has been a good deal of discussion on the necessity or otherwise for a thorough re-organization of our present Association, and at least two or three schemes to achieve this have been drawn up. The question is on the agenda for this meeting and will, I hope, be carefully considered. I should like however, to sound a note of warning. The U.P.A.S.I. is now in its 39th year during which period it has stood the test very well. Starting from very small beginnings in 1894 with a subscribing acreage of only about 120,000 acres, at the present time it represents 221,660 acres. It seems to me that the chief thing to aim at is to make the Association so attractive and useful to everybody that all estates, both

Indian and European owned, will wish to join it, and our Association will become the Headquarters and mouthpiece of every acre of tea, coffee, rubber and the minor products grown in South India. Anything which will tend to achieve this should be done, but I am doubtful whether the alterations suggested in any of the schemes I have seen will effect this, and it seems to me more probable that, if they are agreed to, they will go towards disrupting District Associations as well as the U.P.A.S.I. I trust this may not prove to be the case.

It is with deep regret that I have to record the deaths of the following members of our community during the past year:—

R. H. GOLDIE, an old planter of Peermade and joint proprietor of Carady Goody Estate, Central Travancore P.A., in England, on 29th May 1931.

H. R. BOWLING, of the Kumbazha Estate, Koni, P.O., Travancore, died at Neyoor on the 13th September 1931.

J. S. NICOLLS, ("Johnny") late of the Daverashola Estate, Nilgiri-Wynaad, on 25th October 1931 of pleurisy in a Nursing Home in London. Coming to the Wynaad from Ceylon many years ago, he was first on the Panora Estate, from where he went to Daverashola, in the management of which he continued till the estate was sold a few years ago. Going to England he became the chief Planting Representative for Messrs. Brooke Bonds. For three very strenuous years during the War, in 1916-17-18, he was Chairman of our Association, and it was largely due to his untiring efforts that it was possible to continue to run many estates whose exports were restricted and money difficult to obtain.

J. A. NICOLSON, of Kalaar Estate, Munnar, age 36, after a short illness on 22nd November 1931 at Munnar.

H. M. HALL, one of the oldest planters of the Nelliampathies, proprietor of Cotengady Group of Estates, at Lauriston, Kotagiri, aged 81 years, on 7th December 1931.

COL. W. A. LEE, part proprietor of Hinaree Estate, Mysore, at Home, on the 28th December 1931.

C. J. PUDDICOMBE, of Dunford, Ootacamund, one of the veteran planters of Manantoddy, North Wynaad, aged 96 years and 9 months, at Ootacamund, on the 11th January 1932.

W. C. PETRIE HAY, of Cotacadoo Estate, Sunkoppa, Coorg, at Mercara, on the 12th January 1932.

A. S. L. GROVE, for some time a planter in Coorg, and afterwards in Mysore, at Queen Mary's Hospital, Roehampton, on the 12th January 1932.

R. E. DUNHILL, of Dupadkhan Estate, Santaveri, Tarikere, at Chikmagalur, Mysore, on the 16th January 1932, aged 50 years.

A. F. CAMPBELL, Manager of the Cochin Branch of Messrs. Harrisons & Crosfield, Ltd., near Alwaye, on 27th January 1932. He

attended the Annual Meeting of the Association as representative of his Firm in the year 1929.

F. W. B. SHORT, of Hopeville, Nagalur, one of the pioneer planters on the Shevaroyas, at Nagalur, on the 28th January 1932, aged 80 years.

T. W. H. FITCHETT, General Manager of the Kerala Calicut Estates, Malabar, on 14th February 1932, at Karuvarakundu, at the early age of 45. He represented the West Coast Planters' Association at the Annual Meeting of the U.P.A.S.I. in 1929 and 1930.

R. E. S. BRANSON, Superintendent of the Florence Estate, Kalthuritty, for over 20 years, of Cerebral Hemorrhage, on 26th March 1932, on the estate, aged 58.

A. W. TURNER, one of the original pioneers of the High Range. Part owner of the Talliar Estate, on April 9th, 1932 of Influenza, at Taunton.

H. M. NORTHEY, of Chetanhalli Estate, Kadur District, on the 10th April 1932, at Chetanhalli Estate, of heart failure.

W. O. MILNE, Came out to South Travancore in 1894 and going on to the High Range in 1899 he worked for the Kanan Devan Hills Produce Co., till his retirement in 1928. At Dunfries on the 19th July 1932.

SIR STEUART E. PEARS, C.S.I., C.I.E., I.C.S., Resident in Mysore and Chief Commissioner of Coorg from 1925—29, at Nathigali near Peshawar by accidentally falling over a cliff on the 9th September 1931. He attended meetings of the U.P.A.S.I. in 1925, 1926 and 1929, and on each occasion, addressed our meeting.

To the relatives of the above, I tender our sincere sympathy and condolences on their loss.

It only remains for me to record my appreciation of the whole-hearted support and help rendered to me during the past 12 months by Lt.-Col. C. H. Brock, Mr. F. E. James, Lt.-Commander E. L. Hill and the rest of our staff. No trouble has been too much for them to take, and it has only been by their untiring devotion to duty that it has been possible to carry on. I should also like to record my appreciation of the work done by the members of the Executive Committee, whose wise counsels and ready help have been so valuable to your Association and myself. (*Prolonged Applause*).

The Chairman:—I will now ask Mr. James, our Planting Member, to address the meeting.

THE PLANTING MEMBER.

Mr. F. E. James:—The year has been uneventful as far as the Madras Legislature is concerned owing partly to the absence of serious legislative activities on the part of the Government and partly to the complete absence of any effective opposition. The Retrenchment Committee did useful work in recommending reductions in provincial

expenditure which, if accepted, will ultimately amount to nearly 2 crores excluding emergency cuts in pay and permanent revision in salary. The Government have already accepted a large number of the recommendations and the Finance Member is determined to hand over to the new autonomous Government under the Reforms a sound Balance Sheet.

We were unsuccessful in securing any remission or suspension of assessment on rubber estates. One of the reasons advanced by Government for the refusal to entertain our application was that the assessment represents only a small fraction of the normal cost of rubber estates. But where the price of rubber is as much below the cost of production as it is at the present time, it is evident that rubber estates are running at a considerable loss and that any assessment however light will be a heavy comparative burden. Since the original application was made to the Government the price of rubber has fallen to almost unbelievable depths and I hope that the Revenue Member may now be more disposed to be at least as generous as the Governments in Travancore and Cochin. If actual reduction is not possible, a moratorium would be some relief.

We were successful in getting a re-classification of crepe rubber in the tariff schedule so that those estates in South India which are turning out this manufactured article now enjoy some protection.

There are two matters in connection with local taxation on which I should like to touch. The first is the taxation of motor vehicles. The situation is somewhat better than it was when I stood before you last year. The Motor Vehicle Taxation Act has been revised so that motor vehicles not using public roads are exempt from taxation. A limit of Rs. 5/- has been placed on Local Board license fees on lorries not plying for hire, and just recently Government has announced a substantial reduction in the provincial tax. This reduces the burden on lorries to measurable proportions although it must be admitted that even now taxation in this Presidency is heavier than in any other province in India, and than in most countries in the world. The difficulty of the situation is that the Government and the members of the Legislative Council accepted a Bill which exempted from taxation all forms of vehicles except motor vehicles, without counting the cost. Figures are only now becoming available, and on those that have been received up to date I estimate that Local Bodies have lost a minimum of Rs. 35 lakhs in revenue by exempting bullock carts, etc., from taxation. It is perfectly obvious that this amount cannot be provided by motor vehicles and that is now generally admitted. Either therefore the Government or Local Bodies must restore some form of levy on bullock carts and bandies which do such damage to the road, or they must provide the revenue in other ways, or the Local Bodies must be prepared to wipe Rs. 35 lakhs off their revenue. The last named alternative means, what we have already seen, serious deterioration in the condition of the roads. It is difficult at present to find other sources of revenue which would bring in the required amount. The honest course would be to admit that a mistake has been made and to levy some form of toll or tax

upon bullock carts and bandies before the recollection of the old toll system has completely vanished. It is manifestly unfair that this form of transport should be completely exempt from any liability to pay for the roads which it damages. The cry which is always raised is that the poor agriculturist must not be taxed. As a matter of fact it does not affect the poor agriculturist at all. The people who really benefit are the contractors who own bullock carts, and they are now enjoying this remarkable immunity which was conferred upon them in a fit of absent-minded irresponsibility by the Legislature.

The other matter which I wish to mention is the profession tax, one of the most unpopular forms of taxation throughout the presidency. This is really a surcharge on income-tax and it is a misnomer to call it a profession tax. It is based upon income or turnover, and the Chairmen of Local Bodies are given the most extensive inquisitorial and dictatorial powers in regard to the assessment of this tax. I think it is time that efforts were made to get the whole basis of this tax changed and to put it on its proper basis, which should be a payment in the form of a license fee for the privilege of exercising a trade or profession in a particular area. I am receiving evidence of the tyranny of Local Bodies in the Districts in this matter, and the Government under the Act is powerless to protect any company or person from petty tyranny. I suggest this matter should be taken up by the Association and by the Indian and European Chambers of Commerce throughout the province.

Turning to general politics the position has tremendously changed since I addressed you last year. The second session of the Round Table Conference was held at which Mr. Gandhi was present. On his return to this country Civil Disobedience was again threatened with the result that Government took strong action, promulgated the Ordinances, and deprived the Congress of its power to inflict immediate and disastrous harm on the country. Its leaders have been arrested, its funds sequestrated, and the Provincial Governments have been armed with adequate powers to deal with any recrudescence of civil disobedience or lawlessness. Owing to the improvement in the situation some of these powers have been surrendered. However unpalatable the Ordinances may be to many liberal-minded people, there is no doubt that one of the results of their use throughout the country has been an increased respect for authority and a recognition of the fact that the Government has the initiative in its own hands once more. While there is quiet evidence of much support for the Government it would be foolish to deny the fact that, in its fight with the illegal activities of the Congress, it has not the open and active support of any considerable party in the country. This is probably inevitable in view of the transitional period through which we are passing. No party wishes to identify itself closely with the activities of the present Government when it is contemplating facing new electorates in a few months time. It is not this Government that is going to the polls—there will be new parties and groups.

While, therefore, I can understand the reluctance of many Indian leaders to identify themselves openly and whole-heartedly with an

administration which is not wholly Indian or wholly responsible, and which is to be replaced by the party which wins the next elections, I cannot understand the attitude of those who seek every possible occasion to vilify the police who have the difficult task of carrying out the policy of the Government. Responsible members of the Legislature, in their questions, make allegations against the police 90 per cent. of which, when examined, are not found to have any foundation in fact. It is perfectly fair for the representatives of the people to watch the administration of the Ordinances with a view to preventing any abuses, but I do not think it is fair to ask public questions relating to unsubstantiated allegations most of which are proved to be quite untrue. It is a form of propaganda against the police which does infinite harm. Mistakes have been made, for the police are only human, but I do not think that I am under-estimating the facts when I say that, taken as a whole, there is no police force in the world which would have acted under similar circumstances and in the face of universal vilification and abuse with such restraint and moderation as have characterised the Indian police force.

While the Government has been on the one hand fulfilling its necessary but difficult task of dealing with lawlessness, it has on the other hand been fulfilling its promises in expediting the work of the reforms. The three committees which were appointed as a result of the Prime Minister's statement after the last Round Table Conference have all visited India and have reported. The Franchise Committee has recommended a huge increase in the electorates from 7 to 36 millions or 27.6 per cent. of the adult population. In Madras the Committee has recommended an increase in the electorate for the Legislative Council from $1\frac{1}{2}$ millions to $7\frac{1}{2}$ millions. This figure includes over half a million depressed classes and about $1\frac{1}{2}$ million women. The Federal Finance Committee in its Report attempts to estimate the financial position of the Federal Government of the future. It is impossible to go into the details here, but a perusal of that report gives an insight into the tremendous financial difficulties which confront the adequate financing of the Federal Government of the future. It is quite evident that retrenchment in certain directions will have to go much further than has at present been contemplated before India can pay for the Federal Government which is envisaged.

The Indian States Committee is the last Committee to report, and this has also endeavoured to estimate the financial conditions on which the States might be willing to enter the Federation and the ultimate cost of these conditions to the Federation. It is interesting to note that in connection with the Cochin Harbour, the Committee comes to the conclusion that Cochin as a port should be an important economic factor in a federated India. It considers that the present possession of divided ownership and jurisdiction is harmful to the best interests of the port and that urgent steps should be taken to effect the adjustments required. The Committee definitely states that Cochin will only be of immense value to an Indian Federation provided it is in the undivided possession of the Federal Government, unhampered by any obligations to third parties. That is why the questions of jurisdiction between British India and Cochin and the customs revenue

between British India, Travancore and Cochin require early settlement. Gradually therefore the picture of the future Federation of India is being filled in. To-morrow the Communal Award will be announced and it is hoped that the last obstacle to immediate progress will be removed. It is unfortunate that the British Government has been obliged to undertake this difficult task. The very fact that it has been willing to do so is surely a guarantee of the sincerity of its intention to proceed with the Reforms. The Award will not please every one, but it is expected that it will contain provisions for a voluntary settlement between communities in India before the Government of India Bill is finally placed before Parliament. It is hoped therefore that every community will give the Award its closest study before jumping to hasty conclusions, and that the final opportunity for India to settle her own difficulties will be seized in the spirit in which it will be offered.

We have finished with the period of generalities and are getting very close to the actual details of the new constitution. It is hoped that a Bill will be ready for Parliament early in the New Year based upon the fullest possible consultation with India's representatives. We may, therefore, look forward to provincial elections either at the end of next year or early in 1934, and India will then be embarked upon the first stage of a new constitution which may bring momentous changes in the Government and peoples of this country.

Few realise what great changes are imminent. In British India old land-marks will be swept away. Many of the present leaders will disappear and new men will take their places. I hope and believe that many of the old antagonisms will disappear, giving rise to constructive co-operation between old opponents. There will be a need for new parties to be formed, whose programme deals with the future and does not depend upon communal and other inequalities in the past. The new electorates will need education, and education in the right direction. The provincial governments of the future will have to be representative of all communities and supported by parties in which no particular communal consideration has any place. Many of us may doubt the efficacy of huge democracies in any country to govern themselves wisely or well. But for good or evil the experiment has to be made and I believe that Europeans throughout India will co-operate to the fullest extent in making the Reforms a success.

The Indian States as they join the Federation will not escape the great changes which are coming to India. They are bound to feel the influence of democratic movements in British India. As they are drawn nearer the other units in the Federation, they are bound also to feel the need for closer approximation to British India in matters of administration, finance and taxation. On the other hand they will bring a wisdom, tradition and an experience in Swaraj which cannot fail to be of inestimable value to the Federation.

I firmly believe that in the future of India the European can play a useful part. At present during the constitutional struggle he is often looked upon as an enemy of Indian freedom and an obstacle to Reform. Once Reform is a *fait accompli*, that prejudice will die a

natural death and his help and co-operation will be welcomed. While there will be safeguards in the Statute which will protect him in some measure from unfair dealing, his best safeguard will come from the trust he can inspire in his Indian friends. In the new days that are coming the European should take his part in the formation of stable and progressive parties in the country for the development of India in agriculture and industry. We are small in numbers and our influence in the new Legislatures will depend solely on the quality of our service. The planting community is one of the most important communities in this Presidency for it represents great landed interests dealing with some of India's primary products. Here again we are comparatively few in number, but I believe that in the new political conditions which will be found in Madras shortly, it is destined to play a worthy part. In all our districts men will be needed who can bring the influence of the planter to bear on the problems of the country. If we stand unitedly for sane Government, even justice and steady progress, I believe that our influence will be far greater than our numbers, and will correspond more nearly with the vast interests we represent.

The Chairman:—Before we proceed further, I should like to introduce to you Mr. Campbell Gray of the Concrete Association, who is here now and who is going to deliver a lecture this evening at 6 o'clock. I hope you will all attend.

Mr. Campbell Gray:—In your programme it is stated that there is going to be a lecture at 6 o'clock at the Concrete Association. The word "lecture" sounds extraordinarily dry, particularly so when you happen to be in session to-day, and I should like to qualify that by saying that it is a small address that I propose to give you, exhibiting a number of models, articles and moulds, which will, I hope, prove of interest to you. The address has been prepared specially for Planters, and besides that, I propose showing you a couple of short films on a small Bioscope depicting concrete work which should be of interest to you. Outside of that, there will be only a very short address on Cement and its economic use on various Estates. I hope you will attend the lecture, and on behalf of the Concrete Association I shall be very pleased to welcome you.

The Chairman:—I will now ask the Secretary to call the roll and check the names of the delegates present.

The Secretary then checked the names.

EXECUTIVE COMMITTEE'S REPORT.

The Chairman:—At the commencement of the meeting, I called your attention to the Report of the Executive Committee, copies of which have been circulated to all the members.

Does anybody wish to speak on the report or to ask any questions on any point in the report which is not included in the agenda? If no member has anything to say, I propose from the chair:—

"That the Executive Committee's report for the year ending 31st March 1932, be and is hereby adopted."

The resolution was carried unanimously.

ACCOUNTS—1931-32.

The Chairman:—The next item on the agenda is the Accounts for 1931-32 which have been circulated to all the members.

I now call upon the Secretary to read the Auditors' report.

The Secretary:—The Auditors' report reads as follows:—

"We have audited the Balance Sheet of the United Planters' Association of Southern India (Incorporated) as at 31st March 1932 and above set forth and have obtained all the information and explanations we have required.

"In our opinion such Balance Sheet is drawn up in conformity with the Law and exhibits a true and correct view of the Association's affairs according to the best of our information and the explanations given to us and as shown by the books of the Association and the returns from the Divisions.

—(Sd.) FRASER & ROSS, Chartered Accountants, Auditors."

The Chairman:—The Accounts this year are presented to you in slightly different form to that in which they have appeared in previous years. Referring to the Balance Sheet you will notice that all the assets and liabilities of the Southern India Planters' Benevolent Fund (Inc.) have been omitted. This Fund is a separate incorporated society and its Accounts should not have been included in the U.P.A.S.I. since its incorporation in 1924.

Now that the Provident Funds have been recognized by Government, these two have been eliminated from the Association's Balance Sheet and a separate Balance Sheet for these Funds are included on the last page of these Accounts. I may mention that these alterations were suggested at the Annual General Meeting in 1930.

In that same year, a resolution was passed that the surplus balances of the Scientific Departments, as at the 31st March 1930, be carried forward to their respective Departments and that all Departmental balances be carried forward yearly in future. This should have been done in the Balance Sheet of the 31st March 1931. Those balances, however, were subsequently drawn up separately, and shewn in a Supplementary Balance Sheet presented to you at the last Annual Meeting, and the balances arrived at on the 31st March 1931 have been deducted from the Accumulated Fund as shown in the present Balance Sheet.

During the year, the Executive Committee resolved to start a Furlough and Passage Money Fund to be added to monthly so as to avoid variations in expenditure when the furlough of employees fall due. In order to open this Fund it was calculated that Rs. 7,217-13-4 was required to make up for previous monthly allotments not so credited, and this sum also has been deducted from the Accumulated Fund of the Association.

In accordance with the resolution passed at the Budget Meeting in 1931, to meet the expenditure of the past year, Rs. 30,070-11-9 was

withdrawn from the Accumulated Fund on behalf of the Labour Department so as to reduce subscriptions, and Rs. 7,643-6-7 was similarly withdrawn from the Accumulated Fund to make a still further reduction in the subscription due by rubber. Apart from these, the excess of expenditure over income in Head Office amounted to Rs. 588-10-4 as against the revised Budget estimate of Rs. 2,372. These deductions have reduced the Accumulated Funds to 4,55,703-1-11, as against Rs. 5,91,400 which was the figure they stood at two years previously. Of this amount, buildings, land and furniture represent Rs. 2,24,214-15-7, which leaves a floating balance available amounting to Rs. 2,31,488-2-4. As regards the Income and Expenditure Account, this year it is shown for the Head Office alone, excluding the special cesses and expenditure of the Departments, which are shown separately.

The Accounts as drawn up this year show in detail the Expenditure and Income of the "Planters' Chronicle," Labour Department, Tea Scientific Department, Coffee Scientific Department and the Rubber Scientific Department, and I trust that this full exposition of the various Accounts of the Association make the position of the Association and its Departments quite clear to all its members. I will now ask if any delegate has any remarks to make or questions to ask regarding the Accounts.

The Chairman:—I will now move the following resolution from the Chair:—

"That the Accounts for 1931-32 be adopted."

The resolution was carried.

REORGANIZATION OF THE U. P. A. S. I.

The Chairman:—Under this heading several resolutions have been tabled:

First the Central Travancore Planters' Association ask that the question be fully gone into at this meeting, but that, if possible, the final decision on the matter be left over till District Associations have had adequate time to consider the proposals in the light of the discussion at this meeting.

The Kanan Devans Planters' Association suggest that a sub-committee be elected comprised of representatives of private and company owned tea, coffee and rubber estates to meet, if possible here at this meeting or immediately after, to decide whether any re-organisation is advisable and, if thought desirable, to endeavour to formulate a scheme acceptable to all.

The Anamallais Planters' Association wish to move their specified scheme of re-organisation which has been printed and circulated to every one.

Then there are the South Indian Association re-organisation proposals which have also been printed and circulated.

All these four resolutions have been tabled. I do not know what procedure we are going to follow, but I will call first upon the Central Travancore Association to move their resolution.

Mr. C. J. Madden:—With the permission of the meeting we are willing to withdraw our resolution in favour of the Kanan Devans' resolution or any other similar resolution.

The resolution was, by leave, withdrawn.

The Chairman:—Next comes the resolution of the Kanan Devans that a sub-committee be appointed.

Mr. J. S. B. Wallace:—I should, personally, have liked to have seen some decision arrived at at this meeting, but in view of the fact that different resolutions have been put forward, I do not think we can come to any definite decision now. The only thing is to form a sub-committee, which I understand Mr. Fowke is going to propose, to go into the whole matter and discuss the schemes put forward by the various Associations and interests concerned. If that is done, we will be able to arrive at a scheme which will be acceptable to everybody. I would, therefore, like to withdraw the resolution.

The resolution was, by leave, withdrawn.

The Chairman:—Now comes the Anamallais scheme.

Mr. J. C. Blackham:—I also wish to withdraw our resolution as Mr. Strachan is bringing up a resolution which should suit everybody.

The resolution was, by leave, withdrawn.

The Chairman:—The last are the re-organisation proposals of the South Indian Association which came out too late to be put in the original agenda. Does anybody wish to propose them?

Mr. J. S. B. Wallace:—My intention was to move the S. I. A. proposals as an amendment, but as the Anamallais Association have withdrawn their resolution it does not matter.

The Chairman:—Will the meeting give permission to the Nilgiri-Wynaad to move a resolution? It will be in order. I would ask the meeting to give this permission as I consider it to be really important.

Permission was granted.

Mr. R. M. Greig:—I have a resolution to move. The resolution is self-explanatory. I move:—

"That the whole question of the re-organisation of the U.P.A.S.I. be referred to a committee consisting of:—Colonel Murland, Messrs. H. J. Walmesley, J. S. B. Wallace, H. S. Cameron, A. E. J. Nicolls, L. Newcome, J. C. Blackham and R. Fowke. The committee should consider the question of the re-organisation as far as possible on lines acceptable to all, and that they report to District Associations, Owners, Companies and Firms interested in planting in South India, and that at a later date when time has been given for

proper consideration of their proposals, an extraordinary general meeting be called to investigate, and if thought fit, to pass the necessary resolutions for the re-organisation and alterations, if any, of the Articles of Association and Rules of the U.P.A.S.I. and such subsequent meetings as may be required by Law to confirm the alterations passed at the previous meeting."

Mr. R. N. W. Jodrell:—I second the resolution.

The Chairman:—Does anybody wish to speak on this resolution?

Mr. H. J. Walmsley:—There is only one thing in the resolution which has just been read out, which strikes me as not being quite right. I mean the words "at a later date." I do not think this should take very long.

The Chairman:—Then would you say "as soon as possible"?

Mr. H. J. Walmsley:—I would like Mr. Fowke to accept the words "as soon as possible."

The Chairman:—Have you any objection to that alteration?

Mr. R. N. W. Jodrell:—I have no objection.

Mr. R. Fowke:—Will Mr. Walmsley accept the words "as soon as is reasonably possible"?

Mr. W. A. J. Milner:—May I suggest that representatives be appointed by each industry?

Mr. R. Fowke:—If the meeting wishes that, I have no objection.

The Chairman:—You have heard, what Mr. Milner has said. Is there anybody who suggests that the various products should appoint their own representatives to serve on this committee? It seems to be a fully representative committee.

Mr. R. Fowke:—I think we can meet this case. If there is really a feeling that certain Associations are not represented, I would like with the permission of the mover and the seconder of the resolution to suggest that the name of Mr. Milner be included in the personnel of the committee.

The Chairman:—Does anybody want to make any more remarks on the subject?

Mr. J. S. B. Wallace:—I am quite satisfied and accept the addition.

Mr. A. E. J. Nicolls:—I should like to congratulate the movers of the other resolutions, for meeting us all in this matter.

The Chairman:—It seems to me, gentlemen, that this committee will want the advice and help of a great many other people. You can go on proposing names indefinitely. I would, therefore, suggest to the mover of the resolution that the words "with power to add to

their number" be inserted in the resolution. I think Mr. Milner is agreeable to that.

I will read the resolution as altered:—

"Resolved that the whole question of the re-organisation of the U. P. A. S. I. be referred to a committee consisting of the following gentlemen, with power to add to their number:—Colonel H. F. Murland, Messrs. H. J. Walmsley, J. S. B. Wallace, H. S. Cameron, A. E. J. Nicolls, L. Newcome, J. C. Blackham and R. Fowke. This Committee is to consider the question of the re-organisation of the U. P. A. S. I. as far as possible on lines acceptable to all, and report to District Associations, Owners, Companies and Firms interested in planting in South India. As soon as is reasonably possible when time has been given for the proper consideration of their proposals, an extraordinary General Meeting be called to investigate, and, if thought fit, to pass the necessary resolutions for the re-organisation and alterations, if any, of the Articles of Association and Rules of the U. P. A. S. I. and such subsequent meetings as may be required by Law to confirm the alterations passed at the previous meeting."

The resolution as amended was carried.

Mr. A. E. J. Nicolls:—Can the name of the convener be mentioned here?

The Chairman:—That may be left to the committee to decide amongst themselves. But if you wish to do so now, I should like to propose that Mr. Wallace be the convener of the meeting. Does that meet with the approval of the meeting?

Mr. R. N. W. Jodrell:—Will it not be better to consider the matter at the end of the meeting? I should like to suggest the name of Mr. R. Fowke.

The Chairman:—It seems to me that the best thing would be to let the committee elect their own Chairman. I think that will put everything all right.

BUDGET 1932-33.

The Chairman:—We will now go on to Budget and Finance. The Central Travancore Association have a resolution to bring up.

Mr. C. J. Madden:—My Association apologises for bringing up this subject again. It is one that was before the General Committee Meeting of this year, but we feel that it is a matter of such importance that it should be brought up before this meeting. At present the rate of depreciation on the buildings is $2\frac{1}{2}$ per cent per annum which means that a building is supposed to last forty years. I do not think that it is possible that this type of building would last so long. We, therefore, suggest depreciation at the rate of 5 per cent per annum which will give a building twenty years' life and this is about all that can be expected. We would ask you to remember, gentlemen, that these buildings were built at high prices

and the prices of properties are now on the decline. There are, therefore, good reasons for depreciating at the higher rate as we propose. I have also seen the accounts of the Committee of the Research Institute of Ceylon and I find that depreciation is assessed there at 5 per cent per annum which, I think, adds much to my argument.

Mr. G. Q. Archard:—I second the resolution.

The Chairman:—It is proposed by Mr. C. J. Madden and seconded by Mr. G. Q. Archard:—

“That depreciation on the buildings belonging to the U. P. A. S. I. and its departments should be at the rate of 5 per cent per annum.”

Does anybody wish to speak for or against this resolution? I think it is necessary to say that this subject was very carefully considered by the General Committee who agreed to the lower depreciation and I am told by a reliable authority that similar buildings in low country are as a rule not depreciated at 5 per cent. There are pucca buildings on the plains and the usual rate of depreciation is from 1½ to 3 per cent on similar buildings. I think it is for that reason that the Executive Committee recommended 2½ per cent. It must be remembered also that this was done only as a temporary measure.

Captain E. H. A. Travers-Drapes:—It seems to me that if a building is built properly, it will not collapse in so short a time. If you are going to say 5 per cent., I think you would be only making a book entry. The money has to be found. You are going to show a larger expenditure if you adopt this resolution. In these times we do not want to run figures too close. At the same time, I do not know much about these buildings myself, but surely there are some that are appreciating rather than depreciating as the prices of properties are rising where the town is extending.

Mr. R. Fowke:—We have heard what the Chairman said just now on this matter and what Captain Travers-Drapes has said, and on behalf of my Association I should like to oppose the resolution.

Mr. H. J. Walmesley:—I understand that at the present time a propaganda is being carried out to get the Income-Tax Authorities to allow 5 per cent. If we are going to depreciate at 2½ per cent, we cannot very well claim at 5 per cent. I do not think it makes a lot of difference, but this propaganda is going on to get the Income-Tax Authorities to allow 5 per cent, and if we depreciate at 2½ per cent it is not right. That is my point.

Mr. R. N. W. Jodrell:—We have received information that certain bodies are negotiating with the Income-Tax Authorities to increase the rate for depreciation to 5 per cent and even more than 5 per cent. Therefore my Association is in agreement with the resolution.

The Chairman:—These buildings were depreciated at 5 per cent since the dates they were built. One of the reasons for altering this was to have a balanced budget this year. It is a very small matter, really not worth fighting about.

Mr. R. Fowke:—Up to what extent have they been depreciated?

The Chairman:—You have got the list there. Has anybody anything more to say on this subject? If not, will those in favour please hold up their hands?

The resolution was carried.

The Chairman:—The Central Travancore Association have another resolution:—

“That the U.P.A.S.I. General Cess devoted to the Labour Department grant (being $6\frac{1}{2}$ annas per acre for Tea, $3\frac{1}{4}$ annas per acre for Coffee and $1\frac{1}{2}$ annas per acre on Minor Products) be remitted in 1932-23, and that an equivalent amount of Rs. 58,902 be taken from General Reserve.”

Mr. W. A. J. Müller:—This resolution speaks for itself to a great extent, and there is no need for me to-day to stress the parlous state in which the Tea industry finds itself at the present time. There can be few, if any, Tea Estates working at a profit at present prices, and whereas high elevation tea interests have considerable reserves to fall back upon, those concerned with medium and low elevation have been doing very badly for the last 2 or 3 years and have drawn heavily on whatever reserve funds they did have. Ruin is now staring these latter interests in the face, and every anna of expenditure that can possibly be avoided has to be cut out. That is why my Association, which has been so badly hit by the unprofitable prices of the last 2 years particularly, has put this subject of remission of cess on the agenda of this meeting. A similar proposal was put forward at the U.P.A.S.I. Budget Meeting at Coimbatore but, largely because it was hoped that the anticipated preferential tea duty would have a good effect on the market, the meeting decided by a majority not to deplete the U.P.A.S.I. Accumulated Funds further. Unfortunately, as we all know, the tea duty has not had the desired effect whatever the cause, and my Association considers that it is fully justified in putting forward the claim of tea to a considerable remission of the current year's cess out of the reserves built up from surplus in past years of prosperity.

These reserves stand at the present moment, I believe, at Rs. 2,30,000, of which Rs. 1,42,000 on Head Office account, Rs. 54,000 is for Tea, Rs. 47,000 is for Coffee, Rs. 19,000 is for Labour Department, while Rubber shows a deficit of Rs. 33,000. I am not certain how the large surplus on Head Office account should be apportioned but trust I am right in assuming that it should be divided between all 3 products in proportion to the subscribing acreage, i.e., half of the sum of Rs. 1,42,000 should be allotted to tea. But it is claimed against this that Rs. 1 lakh is necessary as working capital for

running the various U.P.A.S.I. Departments. It is difficult to see why this should be the case, as subscriptions are called up in advance from District Associations every quarter and are in practically every case promptly paid up. My Association considers that a sum of Rs. 50,000 should be ample to provide for any eventuality at a time of crisis like the present and therefore claims that, as far as Tea is concerned, Rs. 46,000 from the Head Office account plus its own reserve of Rs. 54,000, in all, Rs. 1,00,000 should be available for the purpose of remission of cess so that the Labour Department subsidy of $6\frac{1}{2}$ annas per acre on account of Tea can be met for 2 years out of Tea's own money. We have included Coffee in our resolution as we understand that one Coffee Association at least is in favour of a similar remission of cess for that product, but it is of course entirely a matter for coffee delegates to decide, and my Association is willing to amend the resolution in this respect if desired.

Mr. R. N. W. Jodrell:—I second the resolution. I may add to Mr. Milner's remarks that the time has now come and the position of the industries justifies such a step being taken, and it is for this purpose that the accumulated funds were accumulated.

Mr. L. Newcome:—The Coorg Coffee Planters' Association are against the principle of raiding the reserve fund or for still further reducing the cess. As regards the amount we are not quite clear. We do not want to interfere with Tea, but we are not clear as to how much from this Rs. 58,902 is credited to Tea. Our proposal will be that if Tea wishes to take money out of their fund, Coffee will not wish to remit their Cess for the sake of raiding the reserves to the extent of Rs. 1 lakh. The question is whether 5 or 6 annas per acre are going to make or mar any industry, and for how many years they propose to do this. In four years the reserve fund will be completely exhausted. Then the question of re-organisation is coming up. Presumably the funds will be credited to the different products. So in its present form the Coorg and Mysore Planters' Associations have to oppose the resolution.

Mr. R. Forché:—Mr. Chairman, could the Secretary tell us out of its Head Office expenditure surplus, what proportion of that has been paid by Tea, Rubber and Coffee?

The Chairman:—We have had this drawn up and possibly you would like to know it. It was an extremely difficult thing to do. It dates back to 1918 and it was not easy to ascertain. However the Secretary has done so as accurately as possible. In making up the Rs. 1,44,200 of the Head Office Reserve, roughly, Rs. 70,600 is for Tea; Rs. 37,400 for Coffee; Rs. 32,800 for Rubber; and Minor Products Rs. 3,400. The figures are not absolutely correct, but they are as near as we can get them. There is about Rs. 1,500 to come off the total for furniture and stock but that is roughly the position. You have got Rs. 70,000 for Tea plus Tea's own money which was subscribed for Scientific purposes.

You have heard what Mr. Milner said about Coffee. It is very easy for you to get together and draft a resolution. If Coffee does

not wish it, it might meet the case if you say that the expenditure on the Tea Scientific Department may be taken from Reserves. It might make it easier. It is only a suggestion of mine.

Mr. R. N. W. Jodrell:—With regard to the remarks made by a Coffee Planter, it will be simple as the figures are put in the budget. We are asking for a relief of Re. 0-6-6 per acre for Tea and I observe that for Coffee it is Re. 0-3-3 per acre, so that it means that these two industries will obtain relief from this year's Cess of Re. 0-6-6 and Re. 0-3-3 per acre.

Mr. A. E. J. Nicolls:—Coffee does not want relief out of the Reserve Fund.

Mr. H. J. Walmesley:—I may be a little off the point. My Association agrees with the resolution itself but does not agree with Mr. Milner's speech. The question of the division of the various products' shares in the Head Office Reserve might be referred to the Re-organization Committee.

The Chairman:—This will be one of the Terms of Reference. It seems to me that now Tea has come to such a position of financial difficulties that it naturally wants some relief from taxation. Times have altered since the budget came up for discussion. Coffee do not wish for any relief now, and you can hardly expect Coffee to agree to the resolution. You are proposing to relieve them from a taxation which they are perfectly willing to bear. They will be quite willing to agree to any resolution by which those products which want relief out of their own funds can obtain it, while those which do not need any relief may be left out. I would propose foregoing the Tea Scientific Department Cess of four annas per acre. The present proposal is to forego Re. 0-6-6 for Tea. I do not know if my suggestion meets with your approval. It is purely a Tea department and it does not raise any antagonism from Coffee. But if you pass this resolution as it is, then the rate per acre for Coffee will be reduced, and Coffee does not want that reduction. Therefore I would suggest to Mr. Milner to find some other way of giving relief to the industry he represents. If the Tea Scientific Department is four annas per acre, it will give Tea a relief of over Rs. 30,000. You can pay the Tea Cess out of your own Tea reserve funds which were originally raised almost entirely for its Scientific Department.

Mr. J. S. B. Wallace:—I propose the following amendment:—

"That the Tea Scientific Cess be remitted this year and the necessary expenditure be charged against the Tea Reserve Fund."

Mr. R. M. Greig:—I have much pleasure in seconding it.

Mr. L. Newcome:—We have come to an agreement that the matter might be deferred.

The Chairman:—We have the budget again on the agenda for to-morrow afternoon. That will give you plenty of time to consider the matter, and I will take it up as the first item to-morrow afternoon.

U. P. A. S. I. LABOUR RULES.

The Chairman:—Certain alterations in the Rules were passed yesterday by the General Committee. Now they have to be confirmed. The following resolutions were passed:—

“Every Estate, on ceasing to employ a registered labour supplier, shall notify the fact to the Labour Department immediately together with details regarding the supplier's capabilities and character, his further indebtedness to the Estate, if any, and full reasons for the termination of his employment. Any member acting in contravention of this rule shall pay a penalty not exceeding Rs. 50.”

I propose from the Chair that it be confirmed.

The Rule was confirmed.

The Chairman:—Then there is another Rule which was brought up yesterday by the West Coast Planters' Association and passed which has to be confirmed. It reads as follows:—

“As all Estates who are still members of the West Coast Planters' Association have closed down, in order to remove any possible impediment to the employment of the local labour elsewhere, that Rule 14 of the U. P. A. S. I. Labour Rules be suspended in so far as it affects the West Coast Planters' Association.”

I propose from the Chair that it be confirmed.

The Rule was confirmed.

U. P. A. S. I. RULES.

The Chairman:—There was another Rule passed yesterday about the acreage voting. It is:—

“That District Associations be entitled to include in their voting acreage such areas as are exempted from subscriptions under the abandoned area rule.”

I propose from the Chair that it be confirmed.

The Rule was confirmed.

SPORTS CLUB.

The Chairman:—You will see from the accounts that a balance of this fund, amounting to Rs. 1,325-1-8, is in the fixed deposit with the Imperial Bank of India. It is possible that a combined Planters' Team may again compete with the Madras Rugby Tournament this year, which is by the way an All-India tournament on this occasion. I should like to ask the meeting if it is prepared to pay from the Sports Club Fund, the entrance fee and charges for jerseys, etc., as was done last year. The total amount is not likely to exceed more than Rs. 80.

I do consider, gentlemen, that if planters are sporting enough to take down a team to compete in Madras in the All-India Tournament, that they should be encouraged from this Sports Club Fund which was raised for the purpose of helping our sports. You have Rs. 1,300. It seems to me to be a legitimate expenditure against this Fund, and I hope you planters as lovers of sport will not grudge meeting the expenditure of the Team which is willing to go down to Madras to compete in the big Tournament there on behalf of the whole of the Planting Community.

I should like to hear you speak on this subject. If no one has anything to say about it, I propose from the Chair:—

"That the Secretary be authorised to spend such sums as may be necessary from the Sports Club Fund to pay the entrance fee and for the purchase of jerseys up to and within a limit of Rs. 200."

The resolution was carried.

THE "PLANTERS' CHRONICLE."

The Chairman:—Then the next item is the "Planters' Chronicle." The summary of the Income and Expenditure of the "Planters' Chronicle" is shown in the Statement of Accounts with the Auditors' Report for the year which has been printed and circulated.

Should the Editor's Report on the work of the Paper which has been printed and circulated, be included in the Book of Proceedings? I would ask that question first. I think that as the Book of Proceedings is public, it may not be advisable to do so. I propose that it be not printed in the Book of Proceedings, as it is a confidential report.

The proposal was agreed to.

The Chairman:—The Nelliampathy Planters' Association wish to bring up a resolution, but as notice of it was not given in time, the meeting has to decide whether it can be moved or not. The resolution reads as follows:—

"That whereas it is understood that the rates charged for advertising space in the 'Planters' Chronicle' are the same, whatever the position taken may be, and whereas the revenue of the paper is doubtless to be increased by offering out special positions to tender to regular advertisers, this Association desires a system of tender to be adopted for cover spaces and special spaces, such as spaces opposite Editorial and Rainfall pages."

Do you give permission for the resolution to be moved?

Permission was granted.

The Chairman:—I should like to point out that the information contained in the resolution is not quite accurate and I would, therefore, ask the Editor to give you more particulars.

Lt.-Comdr. E. L. Hill:—It is incorrect to say that all rates charged for advertising space in the "Planters' Chronicle" are the same whatever the position taken may be, because we do charge more for the outside cover. With regard to special inside space being reserved for advertisers, we get so many applications that we actually lose contracts because such spaces are engaged already. For this reason we cannot oblige everybody, but, as far as possible, we give positions asked for in rotation as advertisements are received. There is one firm which takes three or four pages in the "Chronicle", and I think it is only fair that they should have the same position when they renew their contract. So far as I can possibly arrange, I give the same position to people who renew, and allot to new advertisers any other favourable position that is vacant at the time.

The Chairman:—Would it be possible to increase the rates owing to competition for special positions?

Lt.-Comdr. E. L. Hill:—No. For the outside cover and inside the front and back cover, which are special spaces, they pay more now. The inside advertising positions are generally renewed by the same people.

Mr. J. S. B. Wallace:—May I ask whether the Editor thinks that the income of the "Chronicle" will be increased if there was a higher charge for advertisements in other positions?

Lt.-Comdr. E. L. Hill:—I do not quite see how the income can be increased. We would probably lose advertisements, and I do not see that it is possible under the present arrangements to make any alterations because certain positions are contracted for already. People do not renew their advertisements at all unless they get the same place or a better one.

Mr. R. M. Greig:—I second the resolution.

The Chairman read the resolution and put it to the meeting.

The resolution was lost.

Mr. R. M. Greig:—On behalf of the Nilgiri Wynaad Association, I suggest that, if possible, a certain amount of news items be included in the "Planters' Chronicle," so that the Planters may read this paper instead of any other newspaper.

The Chairman:—Have you any other suggestions to make? Perhaps Mr. Newcome will help.

Mr. L. Newcome:—I should like cross-word puzzles to be included in the "Planters' Chronicle."

Mr. A. E. J. Nicolls:—I suggest that Hunt news might also be put in this Paper.

The Chairman:—I would suggest that the U.P.A.S.I. members living in Bangalore, Coorg and Ootacamund might arrange for the supply of such news. It will be interesting to have it. An old

planter's opinion is that the "Chronicle" is the Best Paper for the money. The Editor has made a note of these suggestions and will do his best to carry them out.

PLANTING DIRECTORY.

The Chairman:—As the Secretary is going on furlough and the publication of this year's Directory was rather delayed, it is not proposed to publish a new Directory for 1933. Before the Secretary returns, there are several points in the arrangement of the Directory, which should be carefully considered by District Associations. For instance, complaints have been received because estates are grouped in administrative districts instead of planting districts. Further, the names of proprietors are arranged alphabetically twice over in each district, first for members of District Associations and then for non-members, which does not facilitate ready reference. The chief aim of the Directory is to give particulars of all Estates of 10 acres and over that we can obtain, and whether they are members of District Associations or not is possibly of minor importance.

I would like all delegates to ask their District Members to study the Directory carefully during the next few months and send in their views to the Head Office so that a thorough revision of the Directory may be undertaken in good time when the Secretary returns from furlough.

As you know, this edition was reduced in size by omitting copies of various Acts which affect the Planting Industry, and the price was reduced by 33 per cent to ordinary purchasers and by over 50 per cent to members in the hope that this reduction in price would lead to a far greater number of copies being sold. Up to date, however, only 335 copies have been sold as compared with over 380 of the last edition and of those that have been sold only a little over 200 have been purchased by members. If only every estate would take a copy of the Directory there is no doubt that, by printing more copies, it could be sold at a still lower price. As it is, the current edition will little more than pay its way. If the Directory is to be completely re-cast in its next edition, unless the purchase of more copies is guaranteed, it may be necessary to raise the cost of it again.

TEA SCIENTIFIC DEPARTMENT.

The Chairman:—In accordance with the last year's resolution a sub-committee of the Executive Committee for administering the Tea Scientific Department was formed. They drew up a programme of work and a budget for four years limiting the expenditure within a 6 annas cess per acre for four years. In the current year only 4 annas per acre has been called up. In accordance with the programme, two new Indian Scientific Officers were engaged and are now working the station. I think I can speak for that sub-committee in saying that the relations between the Scientific Department and the Sub-Committee have been extremely friendly. Everything that we

proposed, or rather any suggestions that we made, immediately received sympathetic consideration by our Scientific Staff. We have inspected the station on several occasions, gone round the buildings and done all that we could to see that everything was kept up to date. The repairs to buildings have been carefully gone into, expenditure has been sanctioned and repairs have been carried out.

We suggested that, in future, there should be a report by an Engineer on the condition of the station and its machinery, and Messrs. Harrison and Crossfield were kind enough to undertake this free, and the thanks of this Association are due to them for their great kindness. I hope nothing in future will stop the same type of sub-committee being carried on, because close co-operation with so small a body must lead to greater efficiency, to the greater knowledge of the work being done and to the best possible results.

I will now ask the Central Travancore Association to move the following resolution:—

"That the U. P. A. S. I. continue their subscription of Rs. 2,500 per annum to the Indian Tea Association Experimental Station at Tocklai."

Mr. W. A. J. Milner:—My Association consider that this subscription of Rs. 2,500 is one which should be continued. The Experimental Station is doing a lot of valuable work which is not covered either by our own or the Ceylon Institute, for instance, the work of bacteria on the fermenting room floor. A small subscription will entitle us to the advice of the Experts at Tocklai when required, and their advice would certainly be most valuable. At the present time we cannot ask for any advice direct because our subscription has been discontinued.

Mr. R. N. W. Jodrell:—I second the Resolution. The Indian Tea Association has worked very hard on the question of getting a preferential import tax, and they are now working very hard with the delegates to the Ottawa Conference, and my Association feel that it is only right that we should contribute to the Indian Tea Association. Their affiliation with us at Home, I understand, has been of great importance and we have derived benefit from the work carried out by the Indian Tea Association.

The Chairman:—That has nothing to do with the Scientific Station.

Mr. R. N. W. Jodrell:—The Tocklai Experimental Station is a part of the Indian Tea Association.

The Chairman:—Well, gentlemen, I should like to point out that hitherto you have contributed Rs. 72,500 to Tocklai. Every time I attend a meeting, you speak of economy. Now the proposal is to give away Rs. 2,500. As I said in my address, it seems to me that if the Tocklai Station, the Ceylon Tea Research Station and our own Station can only combine for the good of the Tea Planting

Industry generally, without any suggestions for such things as subscriptions, it will be to the ultimate good of the Tea Industry in this country.

Mr. C. J. Madden:—May I ask if I am correct in the assumption that the South Indian Tea Association advocates the continuance of this subscription?

The Chairman:—I believe some letters have been sent to the Secretary.

Mr. W. A. J. Milner:—The South Indian Association, London, strongly recommends it.

Mr. W. K. M. Langley:—How will that entitle us to pay the subscription to Tocklai?

Mr. R. Fowke:—My Association has definitely instructed me to oppose this resolution. They feel that they have already paid quite enough. They feel that they are not getting enough return for their money and they also consider that if we have derived some benefit from Tocklai, Tocklai has also derived some benefit from our own Scientific Department.

Mr. J. C. Blackham:—The Anamallais are in favour of continuing to pay Rs. 2,500 to Tocklai.

The Chairman:—Has anybody anything else to say? If not, I now put the resolution to the meeting.

As there was some doubt, a Poll was taken.

The Resolution was carried by 1,234 votes for to 848 against.

COFFEE SCIENTIFIC DEPARTMENT.

The Chairman:—Since the last annual general meeting, an Indian Scientific Officer has been engaged and he has been making a special study of the diseases in Coorg under the guidance of Mr. Mayne.

TEA SCIENTIFIC DEPARTMENT.

The Chairman:—Mr. Jones and Mr. Mayne have drawn up a scheme for the control of diseases. They suggest that a simple Apparatus and a few Chemicals might be kept either by big Companies or Groups of Estates, so that in the case of an outbreak of disease, the necessary apparatus may be available on the spot. That seems to me to be a very sound proposition. I do not know whether Mr. Jones wants to say anything about it. It is a very valuable proposal.

During the past year our Tea Scientific Officers published a Book on the Tannin principles of Tea. It has been published by the U.P.A.S.I. I do not know whether Mr. Jones would like to say anything on the subject?

Mr. K. B. W. Jones:—With regard to the book that has been published this year I should like to point out that a large portion of the work is of a technical character. The work that has been done in the Department has been written up so that investigators in other countries may follow up the work done here in South India.

The publication is divided into two parts—Part I and Part II. Part I contains much of the matter contained in the earlier publication on the subject in 1930, but as since then the work described there has been very much extended and the conclusions drawn have in some cases been modified. It has been considered worth while to re-write this part in its present form. Part I deals almost entirely with work of an academic nature. It would however have been impossible to proceed to the work described in Part II, without the information derived from the researches described in Part I. I think that on the whole Part II will be of interest to many planters, particularly to those who have followed the scientific theories about tea manufacture as they have been propounded in the Journals of other Experimental Stations. Arising directly from certain researches discussed in Part I we have been able to put forward in Part II suggestions regarding the control of withering. We hope that these suggestions will enable planters to find out the correct degree of wither necessary to bring out in their leaf any properties dependent mainly on the tannin in the leaf, that is to say, such properties as strength, pungency, colour and body in their teas. At present these suggestions are based on theoretical grounds only but we are very desirous of seeing them tried in practice and we shall be very pleased to hear of any experiments carried out on the lines suggested and to discuss any modifications suggested by practical application. We have great faith that the suggestions we have made in this connection will be valuable in relation to certain types of tea.

We have done a considerable amount of work on the fermentation of tea. We have developed a method of analysis which enables us to determine with very reasonable accuracy the progress of changes which take place during fermentation and we hope to be able to find out exactly when these changes should be brought to a halt, and we want to produce a better criterion of fermentation than the colour or smell of the fermented leaf.

I should like to point out that the more important parts of the work described in the previous publication on Theotannin are being investigated by other Research Stations and is being confirmed rather than being countered by serious adverse criticism. We hope that the present publication will prove of more value to other workers.

In reading this new book on Theotannin I suggest that a planter should not try to read the book right through straightaway. I suggest that the order in which to read it should be the Preface, the Table of Contents, the Introduction to Part I, the Summary of Part I, the Introduction to Part II, and the Summary of Part II. After this reference may be made to the General text for the subjects which appear from the summary to be of interest to the practical planter.

The Chairman:—I may inform you that this book has now been printed and is obtainable from the Secretary.

Mr. C. J. Madden:—May I ask a question under this heading? Could Mr. Jones tell us when he expects to send the Entomologist to Central Travancore?

Mr. K. B. W. Jones:—I think I am able to state that the Entomologist will possibly be able to go to Central Travancore in December, but I am not in a position to say anything more definite now.

The Chairman:—Will that suit you? If you want any alteration in date to be made, you can put it up to the Sub-Committee. Has anybody anything further to say on the subject?

Gentlemen, we will now adjourn as it is after one o'clock. We shall meet again at 2-30 p.m.

First Day, Tuesday, 16th August, 1932.

The Meeting re-assembled at 2-30 p.m.

WAR MEMORIAL TABLET.

The Chairman:—Before we go on with the proceedings, I should like to show you this Brass Tablet which is to be placed in St. Stephen's Church, Ootacamund. It has just been completed. It bears the following words:—

"To the memory of those Planters of South India, who gave their lives for the country in the Great War of 1914-1919."

RUBBER SCIENTIFIC DEPARTMENT.

The Chairman:—Owing to the almost complete cessation of tapping throughout Southern India, it is necessary for this meeting to come to a definite decision as to what is to be done with the Rubber Station. In this connexion, the South Indian Association have expressed their opinion that the Rubber Station should be closed down on a bare care and maintenance basis at such cost as would come within the Rubber share of the grant we receive from the Madras Government towards our Scientific Department. I have to record, with regret, that the Travancore Government has not been able to see its way to continue its valuable assistance which they have accorded to us for so many years.

There are no resolutions on the subject. Does anybody wish to say anything about the Rubber Station? We have not received the opinion of the Rubber Advisory Committee as yet.

Mr. H. J. Walmesley:—I am afraid, Mr. Chairman, that the Rubber Advisory Committee have hardly had time to consider the matter, because we only heard a few days ago that our share of the grant has to be cut down. Even now we do not know what the position is, because we do not know from what date the Rubber Growers Association grant is to cease. What we propose to do is to cut down the expenditure at the Station so that it may live on its income. There is also the question whether we will get any share of the Government grant at all, and what we propose is, to find out what possible funds are available and simply reduce the Station expenditure down to that figure.

Mr. R. N. W. Jodrell:—I agree with what Mr. Walmesley has said and I hope that Tea and Coffee will not resist Rubber getting its share of the Government grant based on the acreage of those who are members of the Association. We know that a large area is not subscribing at all, and if the sum required to maintain the Station is less than the last year's grant, naturally we will not ask for it. We want to cut down this year's expenditure at least to the limit of last year's grant.

Mr. F. E. James:—Only one word I should like to say, and that is, that I think in any case, before any final decision is taken about this Station, we may ask for the Government to be consulted, because a part of their grant goes to Rubber and the need of the Rubber Station was one of the arguments used for getting a renewal of the grant two or two and a half years ago, and once you surrender any portion of it, it will be extremely difficult for you to get it back again.

Mr. H. J. Walmesley:—I do not think we ever suggested doing that. A difficult question arose in the interpretation of the Rules of the Association. We suddenly found that really Rubber was only entitled to a very small share of the grant. But, I think, that this has now been put right by the new rule passed regarding voting on declared abandoned areas. I think that covers the point of the distribution of the grant on the basis of areas represented by each product.

The Chairman:—We are not going to close down the Station absolutely, but we are going to work it on a care and maintenance basis covered by its full share of the grant given by Government.

PLANTING MEMBER.

The Chairman:—There is one question before us. Mr. James is going up to attend the Legislative Assembly Meeting in September. There are a good many points connected with planting which are coming up in the Assembly and which will be discussed there, and Mr. James is going as our European representative. The question arises, or may arise, as to who is to take Mr. James's place temporarily in the Madras Legislative Council whilst he is away. We cannot let the seat go by default. Last time Mr. Waddington acted but Colonel Brock is going home on furlough. It is therefore necessary to nominate somebody else to take the seat for the short time Mr. James will be away if found necessary. Personally, I do not know whom to suggest. I do not know if Mr. James would like to suggest anybody. It is necessary to have somebody during Mr. James's absence in Northern India.

Mr. F. E. James:—It is just possible that it may not be actually necessary to elect a successor, because as at present arranged, I shall come back after the Session in Simla in time probably to stand for re-election in my own vacancy, which need not be declared until the middle of September. Of course, there is just the possibility of an extra Session of the Assembly in November, and in this case it will be necessary to find some one to occupy the Planting seat. It will be very nice to know of someone who would be willing to undertake that responsibility if required. I do not know whether Mr. Langley will have the time to do it. There could not be a more suitable person I am quite sure.

Mr. W. K. M. Langley:—I am sorry it is not possible. Mr. James is very kind to suggest my name to take up politics in the Legislative Council. Had it not been for the trade depression, I

would have been able to do so and pleased to do so, but I have not got the time for it now. I consider that Mr. Newcome is very well cut out for this kind of work.

Mr. L. Newcome:—I should like to suggest the name of our Assistant Secretary, Lieut.-Commander Hill.

Mr. F. E. James:—The difficulty with regard to that is that he is not on the electoral roll.

Mr. L. Newcome:—I am also not on the electoral roll.

Mr. F. E. James:—Then you could not be nominated either.

Mr. R. Fowke:—The period would be for the month of September?

Mr. F. E. James:—No, October.

Mr. R. Fowke:—If our Chairman will sympathise with us once again by only leaving India in November, I think it would be all right. Possibly he could defer his journey to a later date in November. Nobody could represent us better.

The Chairman:—I am very much obliged to Mr. Fowke, but, in the first place, I shall be leaving this country in October, and as I have only got four months' leave I cannot possibly put it off. In the second place, my health cannot stand Madras. You must please excuse me.

Mr. F. E. James:—May I suggest that the matter had better be left—if the meeting is willing to leave it—to myself and the Chairman, whoever he may be. I do not know who it is to be.

The Chairman:—Will Mr. Newcome take it up?

Mr. L. Newcome:—I really would rather not, but I think our Political Representative's suggestion is to leave the matter to him and the new Chairman. It is really a good suggestion. There are many other members far more qualified than I am to do this work even temporarily.

The Chairman:—Do you agree that this matter should be left to the present Planting Member and the future Chairman, in consultation with the Executive Committee, to decide?

The Meeting agreed to this proposal.

MOTOR VEHICLES' ACT.

The Chairman:—There is a resolution on the Motor Vehicles' Act in the name of the Coorg Association which reads as follows:—

"This Association views with grave concern the absence of any reciprocal arrangement between neighbouring Governments regarding the taxation of motor vehicles."

Mr. A. E. J. Nicolls:—The absence of any such arrangement hits very hard the man on the borders of two Administrations. We have, for instance, one member just on the border of Coorg and Wynaad and he has to pay both taxes. The same thing applies to Coorg and Mysore. At present in Mysore we pay tolls, but the question of Tax may arise later on. At present there is no reciprocity at all. The Coorg Government tried hard to get reciprocity with Madras, but so far the Madras Government has turned it down. This means that a man may have to pay double or even three times, and though I believe the whole question is still under consideration, there is no harm in bringing up this resolution.

Mr. R. N. W. Jodrell:—I have a proposal which is seconded by the Central Travancore Association. It reads as follows:—

"That this Association calls the attention of the Madras Government to the inconvenience and hardship caused to the owners of motor vehicles residing in neighbouring Indian States by the existing provisions of the Madras Act relating to motor vehicles from Indian States entering the presidency for short periods. It further requests the Madras Government to take early steps to consider the possibility of instituting a more convenient and equitable arrangement."

Mr. A. E. J. Nicolls:—That resolution meets the case. I accept it, but the same difficulty arises in Coorg. The resolution might be slightly altered. Coorg is not an Indian State.

Mr. R. N. W. Jodrell:—My resolution is intended to cover the same purpose. If there is an adjoining boundary, a District in an Indian State actually gets its rice through British India, and *vice versa*, so it makes it almost impossible to get rice up by lorry because they have to pay Rs. 50 per quarter to one in addition to Tax or Tolls in the other.

Mr. A. E. J. Nicolls:—It is only a matter of wording; if Coorg is included that will overcome the difficulty.

Mr. F. E. James:—So far as Coorg is concerned, there should be no difficulty about coming to a reciprocal arrangement. The difficulty is with regard to the Indian States. In Madras we have one system; whereas in the Indian States they have another system of taxing motor vehicles. The result is that those persons who want to enter the Indian States from the British territory would have to pay a tax in addition to that paid in their own territory and *vice versa*.

Mr. A. E. J. Nicolls:—Coorg has tried to come to a reciprocal arrangement with Madras, but they have not agreed.

Mr. F. E. James:—I will take that up now because there is a clear case. With regard to the Indian States it is very difficult, as I have tried to explain. I have recently made a proposal to the Madras Government that, for the time being until some more perma-

ment arrangement is made, the Secretaries of District Planters' Associations be made Licensing Officers which will enable them to issue short-term licenses to their own people for coming into British India. That would, at any rate, be a convenience for the time being. The main objection, as far as I can gather, to that arrangement is that for a person who is coming into British India for one or two days it is very inconvenient because he has, first of all, to get a license for three months and then to claim a refund for two months. Anyone who has demanded a refund from Government knows that it is not an easy matter. I do not know whether any member can make any suggestions with regard to a better method. One suggestion was made by Mr. Jodrell that at each boundary there should be a toll gate and that a car coming from an Indian territory should pay so much for that day for coming into British India. The difficulty is that the car might come into British India for two or three days and it is rather a difficult question. The Government are making enquiries as regards the arrangement in Switzerland where there are different methods of tax and where they must have some arrangement with the neighbouring countries. The thing is to hit on a convenient method. Government will very much welcome any suggestion.

Mr. A. E. J. Nicolls:—Mr. Jodrell has got an amended resolution. We will withdraw our resolution if Mr. Jodrell will kindly move his.

The Chairman:—It is proposed by Mr. R. N. W. Jodrell and seconded by Mr. W. A. J. Milner:—

"That this Association calls the attention of the Madras Government to the inconvenience and hardship caused to the owners of motor vehicles residing in neighbouring Indian States and Coorg by the existing provisions of the Madras Motor Vehicles' Act relating to Motor Vehicles from Indian States and Coorg entering the Presidency for short periods. And further request the Madras Government to take early steps to consider the possibility of instituting a more convenient and equitable arrangement."

Do you give permission to the Coorg Association to withdraw their resolution?

The resolution was, by leave, withdrawn.

The Chairman:—Does anybody wish to say anything about this amended resolution which has been proposed by Mr. Jodrell and seconded by Mr. W. A. J. Milner? If not I will put it to the meeting.

The resolution was carried.

Mr. R. Foxuke:—I wish to bring forward the following resolution:—

"That all Chambers of Commerce, Trades Associations and Motor Car organizations, both European and Indian, be approached with a view to putting up to Government strong

representations to re-impose a toll or place a tax on non-mechanical transport, thus making it pay its fair share towards the cost of the roads."

It is not necessary to speak much on this resolution. I realize that the Executive Committee have already approached the Chambers of Commerce. I merely bring the resolution forward so as to have something on record. Mr. James himself said this morning that it would be a good thing to ask for the re-imposition of tolls as far as non-mechanical vehicles are concerned before the question is lost sight of, and I hope all will agree to it.

The Chairman.—Have I your permission to admit this resolution which was not tabled?

Permission was granted.

Mr. F. E. James.—I should like to say one thing in supporting this resolution. From the available figures we find that in 1915, the income from tolls amounted to about Rs. 25 lakhs. Now in 1915 there were very few motor cars in the Madras Presidency, so that it is reasonable to assume that that figure resulted from the tolls on non-mechanical transport—mostly from bullock carts, bandies and so forth. From later figures that we have only recently received—taking into account the increase in motor transport and the general increase in trade throughout the Presidency—we have estimated, and no one has so far challenged the estimate, as I have already said, that at least Rs. 35 lakhs have been lost to the revenues of District Boards by the abolition of tolls in respect of bullock carts and bandies. I think personally that that is a conservative figure. The later income which used to accrue to Local Bodies from tolls altogether came to about Rs. 66 lakhs, and that was the amount which the Government expected to find by their Motor Vehicles' Taxation Act. Another Rs. 24 lakhs came to District Boards and Local Bodies from license fees, in other words, a total of practically Rs. 90 lakhs. Now that figure has been reduced considerably. We have got Rs. 30 lakhs under the Motor Vehicles' Act up to date. The income from license fees levied by District Boards has also declined considerably, and one of the main results of this policy of abolishing tolls for all forms of vehicles has been that the roads have lost a very large sum of money, and the consequence is, of course, the deterioration that you see every day in some of the most important roads.

We, the European Members of the Legislative Council, have fought in season and out of season for the restoration of some form of levy on bullock carts, which are mainly responsible for the deterioration of roads. The argument in the Legislative Council is of course, that this is an attack on the poor agriculturist, and that it is a very good thing that he is now relieved of that tax. Our answer to that is that the poor agriculturist seldom gets his bullock cart on to the road at all. The person that is now escaping taxation is not the poor agriculturist, but the contractor. Anybody who does a great deal of travelling on the roads, knows perfectly well that you seldom see an odd bullock cart by itself. You see a number of them going

together and those belong to contractors, and it is the contractor who is now receiving this extremely fine gift from the Legislative Council given in a fit of absent-minded aberration, and we should use all the influence we possibly can in trying to get this levy restored again. Mr. Greig can tell us the havoc that this kind of transport has wrought on his District Board finance and the result is that, not only there is less income to spend on their roads, but the bullock cart traffic is rapidly increasing. I know of case after case where lorries have been taken off the road and have been substituted by bullock carts. The result is no income from that form of transport for the upkeep of roads, and its place has been taken by the one form of transport which does more damage per unit than any other form of transport. It seems to me that we have an absolutely clear case and the only real obstacles are two. One is the refusal, so far, of the District Board Presidents and their Boards to face the real financial effects of the situation, and the other obstacle is the fact that District Board Presidents and others in the Legislative Council feel that if they support any measure of this kind, they will be jeopardising their chances at the next election. It seems to me that both of those obstacles are unworthy obstacles when you are dealing with such a question as Roads. After all, good roads throughout the Presidency are not only a benefit to Motorists, but they are of untold benefit to everybody. They facilitate the movement of goods, they facilitate the disposal of produce, and a Province which has bad roads is, a Province which is not likely to expand in its Trade and Commerce. Therefore anything we can do in this line to try and overcome these two obstacles, such as a resolution like the one before us, will do good and will strengthen the hands of those who are fighting this issue in the Legislative Council.

The Chairman:—This resolution is proposed by Mr. R. Fowke and seconded by Mr. J. C. Blackham, and I will put it to the meeting.

The resolution was carried.

Mr. C. J. Madden:—I should like to ask a question. The Government have sanctioned a reduction in the Schedule of taxation on Lorries by about 30 per cent. From what date will it have effect?

Mr. F. E. James:—From October the 1st.

Mr. W. A. J. Milner:—I should like to ask Mr. James under the previous system of tolls, what was the amount motor vehicles had to pay during the year in tolls and license fees.

Mr. F. E. James:—It is very difficult to find out exactly. I have applied for those figures. In some cases they had a compounded fee for a particular road, but in other cases there was no compounded fee, and therefore it is not possible for us to find out now exactly what they did pay in all. It depended upon the number of tolls. I am convinced of this that, under the Act, the motor buses are paying more now than they used to pay under the system of tolls.

INDIAN FACTORIES ACT.

Mr. R. N. W. Jodrell.—Under the proposed amendment to the Indian Factories Act, it is proposed that the Local Government may declare any factory, in which ordinarily work is carried out for more than 180 days in a year, to be termed "perennial factory," even though at present classified as "Seasonal." It is known that we derive benefit from being classified as "Seasonal" factories at certain seasons of the year. I would, therefore, like to propose:—

"That in view of the proposal in the proposed amendment to the Factories Act that factories should ordinarily be termed 'perennial' factories if they work for more than 180 days in a year, this Association is strongly of the opinion that factories in South India manufacturing Coffee, Tea and Rubber should continue to be classed as 'Seasonal,' and that the Local Government should be informed accordingly."

Mr. J. C. Blackham.—I second the resolution.

The Chairman.—This is a resolution which has not been tabled in time. I must ask the meeting if Mr. Jodrell has your permission to move this resolution?

Permission was granted.

The Chairman.—I will put this resolution, which has been proposed by Mr. Jodrell and seconded by Mr. Blackham, to the meeting.

The resolution was carried.

WORKMEN'S COMPENSATION ACT.

The Chairman.—In this connection, I would ask you if you would give permission to the Mysore Association to bring up their resolution?

"That this Association strongly protests against the application of the Workmen's Compensation Act to labour employed on plantations, unless and until it is also applied to all Labour employed by Government Departments, such as Forest, Public Works, etc., and to all Agricultural Labour employed by Land-Holders in India."

Permission was granted.

Mr. L. Newcome.—Gentlemen, I apologize, in advance, for putting up this resolution at greater length than I am accustomed to. This subject is a very important one to the Planting industry in view of the fact that the proposed measure is only the first of a whole series of Acts, arising from the recommendations of the Royal Commission on Labour in India, with which we are threatened, and a little time devoted to it will be worth while. I would first refer to the unfortunate fact that the Indian Tea Association, without consulting this Association, communicated to the Government of India that this Bill, although not necessary for the planting industry in view of the rarity of accidents, would not do any particular harm to it. I think it is necessary for us to be united in

order to meet all these things. I do not think it will be politic for this Association as a whole to commit ourselves, but I should like to express the view of the Coorg and Mysore Planters' Associations, that they view this action with the strongest reprobation. Their main point is that accidents on the estates are comparatively rare now, but will they be rare under this proposed Bill? It is, in my opinion, a direct incitement to a certain class of labour to create accidents. One is reminded of the story of the Motorist who was going through a village when he had the misfortune of running over a woman. In that village he had to pay heavy compensation. After that, the villagers drove all the old women out of their houses and into the middle of the road whenever any Motorist was approaching the village.

But I am trying to confine myself to speak to this resolution and to say just a few words on the Bill as it stands. It is on the face of it, an exhibition of ignorance and prejudice against the plantation industry. I would refer to one more thing, namely, that in the case of a dispute or frivolous complaint, however small, a sum not exceeding Rs. 100 shall be paid pending decision. Even if the case is won, we all know that that Rs. 100 will have gone for good and I suppose we shall be told that we can recover it from the Civil Courts. What strikes one is that, in other Bills introduced on this sort of subject, there is always a small amount of equity. That is to say, if privileges are conferred on any one class, obligations are equally conferred. In every other Bill that principle has been observed. In this case there is not a single reciprocal item introduced protecting the employer from fraud on the part of the employee or in any other respect.

In my opinion prejudice has been created from the time that the word "plantation" has been introduced. Although we call ourselves planters, we never talk about "plantations"; we refer to them as estates or gardens but never as "plantations". I do not know whether the Authors of this Bill have been educated to talk of these matters in the words of "Uncle Tom's Cabin," and imbued with the old Indian stories that on our "plantations" there are slave gangs, the same as there were in America, and so on. I speak without fear of contradiction that our labourers in South India are free, the freest labourers in the land. In other places they bind down a labourer to work, but with us his village is fairly close, he goes when he wishes, and he comes when he wishes; he comes out for work when he wishes, or sits in his house when he wishes.

I should like to ask one more question. There is a certain amount of uneasy feeling that this question has already been somewhat prejudiced. I should like to ask our political representative—if you do not mind my doing so—if in the correspondence with the Government of India, we have in any way committed ourselves to the idea that the Bill must come? We take the view that in cases of this sort, which we consider to be absolutely biased and unjust, we should stand up like men and say that we object to the whole thing, and, even if we are divided, we will strengthen the hands of this

Association to fight our enemies who may try to prevaricate or dodge with political finesse. It is well known that on the introduction of the Workmen's Compensation Act the original idea was quite right. It was meant to apply to Railways, Factories, Mines, etc., where all workmen were gathered together and where accidents can be more or less open and can be proved. It was at the last minute for political purposes that the question of including "plantations" was introduced. I venture to think that there is a great deal of feeling against extending this Bill to plantations. We have in plantations areas in which labourers are peacefully settled, but there is a certain type of politician whom peaceful and contented conditions do not suit at all. What could be more calculated to upset this peaceful atmosphere than the whole theory of contentious litigation which will possibly create mistrust and suspicion between the employer and the employed.

Another point is that in the present state of the Industry, such acts are calculated to result in the benefit of the very few to the detriment of the many. It will tend to the depreciation of wages, to the elimination of a number of people employed on the estates which may become subject to accidents, and, as pointed out by our Chairman, to a certain amount of loss of sympathy on the part of estate employers. We have also to consider the effect that such legislation has had in England. During the last twenty years the effect is that, like the Bourbons of old, they have learnt nothing and forgotten nothing. In past years a whole series of socialistic acts were introduced into England, and the present time is being devoted to try and correct the mistakes made in the socialistic legislation in the past. It may be asked why not oppose the Bill altogether? Well, one very strong reason is that would be liable to misrepresentation. The Bill is for the benefit of the labour. But our whole point is that this Act is wilfully and wrongly directed against "plantations" alone of all agricultural labour in India. This resolution also aims at showing that, if the authors of this Act were sincere in bringing this up, if they were doing it for the real good of the agricultural labour—then why only mention plantations? If it is as an experiment, why make the experiment on us when it is well-known that the Forests and Government Works, and there are many more other employers of agricultural labour, employing many more labourers than we do in planting. It is also well-known to us—except when we are wilfully blind to it—that our labourers spend half of their time on their own agriculture.

Then there is the contention in the whole of that "49 Labourers" Clause. The framers of the Bill apparently take the view that not only is one law good for the poor and another for the rich, but that a very severe law should be applied on the so-called rich and no law at all on the poor. That very Clause makes the Bill totally unworkable in Coorg and if Mysore introduces it, it will make it unworkable in Mysore. Mysore show the wisest and sanest example of legislation at present in Southern India. They are not rushing into all these things without considering them. Well, that "49

Labourers" Clause in Coorg, where you have large Estates surrounded on all sides with little groups, and the same is the case in Mysore, would make the Bill unworkable. You cannot work a law on an estate of one hundred or more acres when you are surrounded with a number of small estates employing less than 50 labourers which are exempt from that law. We are not opposed to the reasonable measures of the Workmen's Compensation Act introduced specially to apply to agriculture as regards injuries from machinery employed on estates even now. I do not think that Planters as a whole are opposed to a Compensation Act, but the whole point of the resolution is that the Estates are totally different from Factories, Mines, and so on, and cannot be included with them.

Captain E. H. A. Travers-Drapes :—I second the resolution.

Mr. F. E. James :—May I just say one or two things. First of all it must be remembered that this Act merely carries out the recommendations of the Whitley Commission. It has not been conceived in the brain of any one Government Department. It is merely carrying out some of the recommendations of the Whitley Commission. In the second place, the Act does not seek merely to apply to plantation labour—it extends to large number of other labours and the result of this would be that two million people more would come under the Workmen's Compensation Act and half of that number would be labourers on Estates. So it is not solely designed to extend the Act to Estates—that is only half the Bill. It is also designed to extend to other forms of labour which do not at present come under the Workmen's Compensation Act. My estimate is that one million of labour on Estates will be brought under the Act.

A letter was sent by the Secretary of the U.P.A.S.I. to the Government which reads as follows :—

"My Association does not feel that the extension of the Workmen's Compensation Act to Planters, is either necessary or desirable or even possible. Accidents on the Plantations are extremely rare and it is difficult to ascertain their cause. All Planters have their own Benefit and Welfare Schemes."

That, I take it, represents the position taken by this Association. Then with regard to the second paragraph in the letter, we stated that, if extended to estates, there should be certain amendments. We have dealt with the "49" Clause, for example. We have dealt with the work of toddy shops and so on. We have dealt with other forms of hazardous labour. There is just one point which I want to make it clear. It is with regard to that Clause which deals with the Rs. 100/- deposit. I think there is a slight misunderstanding there. Under the law at present, if the Commissioner of the Workmen's Compensation Act gives an award against the employer and the employer appeals to the High Court, it is not clear that the Commissioner can withhold payment of the award pending the appeal. All that the amending Bill does, is to make it clear that

he can withhold any payment whatsoever until the appeal is decided, but subject to the provision that in his behalf he may pay to an indigent person an allowance up to a maximum of Rs. 100. Presumably the Commissioner of Labour is not likely to pay anything unless there is a strong case in favour of the employee, or unless the circumstances are such that, even from the point of view of Charity, some consideration is required. I thought I might make that point clear.

Mr. L. Newcome.—I thank the Political Representative for his explanations which have made matters clear.

The Chairman.—Mr. James said that it was not only the planting labour that was coming under the Act. I think I am right in saying that there is no other agricultural labour coming under this Act.

Mr. F. E. James.—It is to apply to no other Agricultural Labour.

The Chairman.—Therefore it is purely legislation for one infinitesimal class of Agricultural labour. I think that that is a very strong point.

Mr. W. K. M. Langley.—May I ask Mr. James if the Workmen's Compensation Act in England and other European countries applies to the agricultural labour universally?

Mr. F. E. James.—No; not universally.

The Chairman.—The resolution is proposed by Mr. L. Newcome and seconded by Captain E. H. A. Travers-Drapes. I will put it to the meeting.

The resolution was carried.

The Chairman.—Has anybody anything else to say about legislation? If not, we will go on to the Political Department.

POLITICAL DEPARTMENT.

The Chairman.—Mr. James spoke about this in the morning and he specially said that if any information is wanted in connection with his Department, he would be quite willing to give it. Now you have your chance, and you may ask him questions.

Mr. R. M. Greig.—Mr. James said that one of the best things done for the lawlessness in this country was the demonstration by Lord Willingdon and his Government and that they were determined to rule. Not so very long ago I recollect that Mr. James in so many words eulogized the late Viceroy and his Government for their pacifist attitude. May I know whether Mr. James has changed his opinion, and if so, what are his reasons?

Mr. F. E. James.—There is no change of opinion. Personally I held the view at the time when he was governing this country that Lord Irwin was on the right lines. If Lord Irwin had been in Lord

Willington's shoes, he would have done exactly what Lord Willington has done. You must remember that during the last years of Lord Irwin's Viceroyalty, his one object was to put the Congress in the wrong. I told the meeting one year that he had expressed to me in Simla, one July before he left, that the trouble with the political situation out here was that we allowed so often the Congress people to put us technically in the wrong, and he was quite convinced in his own mind that, if we could get the Congress to go to the Round Table Conference, they would either completely fail to do anything at all, or, they would succeed and would change their policy to one of co-operation. Either, he thought, was just possible. We know that the whole object of the Irwin-Gandhi pact was to get the Congress to the Round Table Conference. The result was one that Lord Irwin had foreseen right from the beginning. He was not the agreeable sentimentalist that some people tried to make him out to be. He was a very far-seeing man, and he foresaw, long before any of us had any idea about him, that once he could get Mr. Gandhi to go to the Round Table Conference, the machinations of the Congress Party would be absolutely exposed. I think in that he was thoroughly justified. History alone can decide as to whether he was justified in making that attempt and in straining the loyalty of people in this country to the extent that he did. No one can possibly say that at this stage. But I am perfectly satisfied that the result of Mr. Gandhi's visit to the Round Table Conference, and his complete failure to settle the communal trouble, has put reforms back immensely and that is the opinion not only in this country, but also it is the world-opinion—which cannot be ignored in these days—and when Mr. Gandhi came back there was an attempt for the renewal of civil disobedience. The Government did not only have to consider how to deal with it, but they had behind it tremendous moral strength. It was plain to the world that Congress had gone to the utmost limit and that it was their fault. The Congress had failed to achieve that which they said they could achieve. In that sense I said, and I still say, that Lord Irwin was right, and in the same sense I say now, when the time had come that Lord Willington was right. To take those two views is not at all inconsistent. You may disagree with that particular policy, but I claim that it is not at all inconsistent.

Mr. G. R. Strachan:—I would like to ask Mr. James about the Whitley Commission's recommendations which, I understand, is likely to come up before the Legislative Council next year. I should like to know when the following Clause will become law:—

"Advances to workers should be irrecoverable by law, and also a system of weekly payments be adopted, and wages be paid within seven days of the expiry of the period, etc."

With regard to these two, I wish to know whether any general opposition is likely to be raised. On large Estates we have a large number of coolies to pay, but first of all, I should like to know from Mr. James if this legislation is likely to be introduced, and if so, whether any opposition would be raised?

Mr. F. E. James:—I know that legislation is under consideration in connection with a monthly payment of wages. When I last saw the Commerce Member he told me that he was considering the possibility of monthly payments. I do not think Weekly payments are being considered, but the Bill, as far as I know, has not reached the drafting stage, and therefore it will not be introduced in the Legislative Assembly until probably early next year when I expect it will be circulated for opinion like the Workmen's Compensation Bill has been, and it will not come finally before the Assembly until the end of the year. I cannot say whether there is any likelihood of there being any opposition to it. No doubt there will be opposition to it from the Planting Representatives in the North as well as in the South, but I do not think you need consider the possibility of any shorter period than a monthly payment being put up in legislative form.

Mr. R. N. W. Jodrell:—Mr. James referred to the inequity of the Profession Tax. Does he think that anything will be done now by passing a resolution against it?

Mr. F. E. James:—No; I do not think so. I think it is probably better first of all to try and get the Chambers of Commerce, both European and Indian, to adopt some definite procedure. It is no use, for example, bringing forward a proposal to remove any source of revenue from District Boards without giving them some sort of revenue in its place, and the proposal that I should like to make is that instead of the profession tax being based upon income, as it is in the districts at present, or on profits of Companies, which I feel to be wholly wrong because you are usurping the position of the Income-Tax Authorities, if you are going to have any tax at all, it should be a tax or a license on the business exercised by any trade or profession in a particular place. In Calcutta you have a Schedule of professions, and you know exactly how much you have to pay. I think people ought to rise up and object to giving Panchayats and District Boards power not only to tax your income but also to make enquiries and call for your returns. The Chairman of a District Board may say that he does not believe your statement of accounts, and there is no appeal against that to any higher authority than to the Board or Municipal Council. If you have had any experience of appealing against the award of the Chairman of a Municipal Council to his own Council, you will know how much good that sort of appeal is. That, I think, we should take up, but I do not think that a resolution at this stage will be wise.

Mr. L. Newcome:—What about the abolition of Advances?

Mr. F. E. James:—I am sorry. I have not seen any proposal so far for legislation on that point, or whether there will be in this Bill relating to monthly payments any clauses dealing with the abolition of advances. Personally I very much doubt the advisability of legislation on the question of advances.

Mr. R. M. Greig:—Mr. James said that the Madras Government's figures with regard to the revenue to be derived from the

Motor Vehicles' Act were utterly and completely wrong. I should like to ask him if he thinks that there is any valid reason for their being wrong, or was it merely due to inaccuracy and inefficiency?

Mr. F. E. James.—The reason is this, and it sounds almost incredible. Under the old system of the registration of motor vehicles, no register was ever cancelled. If you wore your car out and destroyed it and bought another car, you took out another registration, but the old registration still remained alive. When we were told that there were 6,000 buses, actually there were under 2,000. They based their calculations on the 6,000, because since the day that buses came in, 6,000 buses had taken out registration certificates. The same was the case with the cars. We had no idea of the number of cars in the Presidency simply because there was no method of checking, and there was no method of cancelling registration, so the figures based on those calculations were bound to be absolutely wrong.

Mr. R. M. Greig.—Who was the individual responsible?

Mr. F. E. James.—I only wish I knew who it was!

Mr. A. E. J. Nicolls.—Has Mr. James any idea as to whether the Government expect to raise the funds with which to run the organization which will be required to deal with the extension of the Workmen's Compensation Act?

Mr. F. E. James.—It will mean additional expenditure, but it will be borne by Provincial Governments, because the administration of the Workmen's Compensation Act is a Provincial matter, and each Province now has a Commissioner—a Workmen's Compensation Officer either as a part time officer or full time officer.

ROADS.

The Chairman.—We will now go on to Roads. The Nelliampathy Planters' Association have a resolution to move which reads as follows:—

"That in view of the Estates in the British Nelliampathies having paid the Malabar District Board Cess inclusive of the Special Education Cess for many years without any return from the District Board in the way of Road Grants, etc., Government be asked:—

(1) To make annual grants in aid of the British Nelliampathy District Boards.

(2) To remit payment of any further Cess, until the District Board makes such grants as are commensurate with the many years of payments made."

Mr. J. S. B. Wallace.—There is not very much to say on this resolution. The Nelliampathies have paid this Cess for many years. Now the district is reduced to 3,329 acres in cultivation and they are still paying the Cess. They have never got anything for it. There are no roads at all, and there are no education facilities or anything.

of the kind. I think, if we can, we ought to be relieved of the cess or get a grant towards the roads. Perhaps Mr. James will be able to tell us whether there is any possibility of getting it.

Mr. G. R. Strachan:—I second the resolution.

Mr. F. E. James:—I should like to say that I saw Mr. Conran Smith, the Secretary to the Local Self-Government, just before I came up here, on this very subject, and I can tell Mr. Wallace that Government is making enquiries very sympathetically into the matter. The difficulty is that, usually, for Local Self-Government purposes the Government does not make direct grants, the grant will have to come through the District Board. He has got into touch with the Collector at Malabar and the District Board, and I hope something definite will be done. He was quite convinced that there has been injustice and probably something will be done in the next budget.

The Chairman:—I will put the resolution to the meeting.

The resolution was carried.

The Chairman:—The Nilgiri-Wynaad Association have a resolution to move.

Mr. R. Fowke:—The resolution is as follows:—

“That strong representations be again made at an early date to the Government of Madras to take over from the Nilgiri District Board the main road from the Choladi Bridge to Ootacamund and place same under the control of the P.W.D.”

The Chairman:—Do you give permission to Mr. Fowke to bring this up, as it has not been tabled?

Permission was granted.

Mr. R. Fowke:—I moved this resolution as a matter of fact in 1930. The Executive Committee went into the matter and in 1931 they wrote in the report of the Executive Committee as follows:—“The resolution has been duly forwarded to the Secretary to the Local Self-Government, but no reply has been received.” Up to the present there is no further information from the Local Self-Government Department. We are thus forced to bring forward this resolution again. The road in question is the road which connects the Wynaad to the Upper Plateau at Ootacamund. It is a main trunk road. The road was bad in 1930 and has been getting steadily worse ever since. I do not think any gentleman who has been along that road, and who is at this meeting to-day, will contradict me that the road is almost impassable at certain corners. We must not lose sight of the fact that it is a trunk road. The sum of money which is allocated by Government to the District Board is Rs. 500 a mile for this road. I know for a certain fact that even that Rs. 500 is not expended on the road, and it seems to me that the time has now come when the road should be taken over by the Public Works Department, and the whole

Section right from Choladi to Ootacamund would then be under the control of the Public Works Department and we would be sure of a safe outlet. I hope everybody will be good enough to vote in favour of this resolution.

The Chairman:—It might interest you to know that when I was on the Road Board the question was brought up by the then Chief Engineer and one of the roads to be in charge of the P.W.D. was the very road now mentioned by Mr. Fowke. In the first place it is regarded as a military road—of great military importance—and in the second place, half of it has already been taken over by the P.W.D.—the Malabar part of the Wynaad—and I understood then that it was only a matter of a very short time for the whole of it to be taken over by the P.W.D., so to have an outlet to Mettupalayam and Mysore on one side and to Choladi in the other. What stopped it goodness knows! I trust everyone in the room will recognise the importance of this road from a military point of view and from every point of view, and will support this resolution whole heartedly. It has been seconded by Mr. R. N. W. Jodrell, so I will put it to the meeting.

The resolution was carried.

Mr. R. N. W. Jodrell:—May I ask if it is possible to get the Military authorities to support us? It is true, I think, that they addressed the Government about its condition a short while ago, as their armoured cars had some trouble on it, and probably it will help us a good deal if we ask them to remind the Government and get their assistance.

Mr. R. Fowke:—I gather that an armoured car broke a spring on that road and the Military Department then appealed to the Madras Government, and the District Board were instructed to make the road anyway fit for military transport.

The Chairman:—I may tell you that the Accountant-General went down that road and he said that he was going to make a very strong representation about it. He said it was the most disgraceful road he had ever seen. That was four years ago. Probably Mr. James will take this matter up and do what is necessary. Does that meet with your approval?

Mr. R. N. W. Jodrell:—Thank you.

Mr. J. S. H. Morgan:—I wish to move a resolution with regard to the impassable condition of the Kodlepet-Saklasapur Road.

The Chairman:—Has Mr. Morgan the permission of the meeting to move the resolution? It is proposed by Mr. J. S. H. Morgan and seconded by Mr. G. Q. Archard, and reads:—

"That this Association wishes to bring to the notice of the Mysore Government the impassable condition of the Kodlepet-Saklasapur Road during the monsoon months."

Permission was granted.

Mr. J. S. H. Morgan:—The road is one of the leading roads between Mysore and Coorg and if that road is impassable, we have to go to Mysore by another way round which is about 200 miles. Other roads in Mysore are bad, but the road that takes you from Coorg to Mysore is extremely bad. That road also, I understand, is a Military road. I hope this Association will take the matter up, so that we can ask the Mysore Government to take the necessary steps.

The Chairman:—I will put the resolution to the meeting.

The resolution was carried.

REPORT OF THE DIRECTOR OF THE LABOUR DEPARTMENT.

The Chairman:—The Director's Report on the work for the past year has been printed and circulated to all the members. Have you any questions to ask or remarks to make about the Report? If nobody has anything to say, I will propose from the Chair:—

"That the Director's Report on the work of the Labour Department for the year ending 31st March 1932 be adopted."

The resolution was carried.

LABOUR DEPARTMENT.

The Chairman:—The next item is the Labour Department. There was a special labour meeting held yesterday afternoon. I do not know whether any resolutions were brought up or any recommendations were made?

The Kanan Devan Planters' Association tabled a resolution to bring up which reads as follows:—

"That a Sub-Committee be appointed immediately to decide what re-organisation of the Labour Department will be required to meet the situation that will arise upon the Abolition of Advances."

Mr. J. S. B. Wallace:—We would ask your permission to withdraw the resolution of which we have given notice. At the Labour Department meeting a decision was arrived at and a Sub-Committee was appointed to go into the matter and it was then decided not to bring up this matter at the General Meeting. So with your permission, we wish to withdraw the resolution.

The Chairman:—Have the Kanan Devan Planters' Association the permission of the meeting to withdraw their resolution?

The resolution was, by leave, withdrawn.

The Chairman:—Gentlemen, that finishes the agenda allotted for to-day. With your permission I propose to continue with to-morrow's agenda now.

Permission was granted.

INDIAN TEA CESS.

The Chairman:—I should like to put from the Chair the following resolution:—

"That the U. P. A. S. I. represent to the Government of India that they are in favour of an extension of the Tea Cess for a further period of five years from the 1st of April next."

The resolution was carried.

The Chairman:—I would now ask the Nelliampathies' delegate to speak on the following resolutions:—

(1) "That this Association, in view of the fact that propaganda in America has not resulted in any material increase in gross tea sales and further has not yielded a return commensurate with expenditure in so far as sale of Indian tea is particularly concerned, considers that this expenditure should be stopped and increased funds allocated to propaganda in India."

(2) "That this Association considers that propaganda once commenced by the Indian Tea Cess Committee in any one locality should not on any account be given up because of the advent of independent vendors until and unless the Indian Tea Cess Committee is fully convinced that the market is firmly established."

Mr. J. S. B. Wallace:—With regard to the first resolution, I have nothing to say about it except, personally, to oppose it. It was decided at the last meeting of the Indian Tea Cess Committee to continue their annual grant for a year at the request of London. London knows more about what is going on in America. I am not in favour of the resolution, but I have been asked to move the resolution and so cannot withdraw it.

The Chairman:—Does anybody second the resolution?

The resolution fell through for want of a seconder.

The Chairman:—On behalf of the Nelliampathy Association Mr. Wallace wishes to withdraw the second resolution. Does the meeting give permission for it to be withdrawn?

The resolution was by leave withdrawn.

The Chairman:—We now go on to the Central Travancore Association's resolution for which they have to ask permission as it was not sent up in time. I will read it to you:—

"That the U.P.A.S.I. is in favour of the proposals of the Indian Tea Association, London, regarding the extension of the Tea Cess Committee's work, whereby individual gardens dispose of their tea direct to retailers: these proposals appearing to be the most practical and economical means yet suggested, and the necessity for which is so urgent if any improvement in the market price of tea is to be effected, it is hoped that the I.T.C.C. will see their way to adopt London's proposals in the near future."

Permission was granted.

Mr. W. A. J. Milner:—Mr. Chairman, I do not know if this resolution can be discussed after the request we received the other day from the Indian Tea Cess Committee, but with your permission, I should like to read out their remarks to you because it gives information on the subject.

Mr. R. Fowke:—May I suggest that this resolution be deferred for the moment while you hear the deliberations of the Sub-Committee you appointed yesterday.

Mr. R. N. W. Jodrell:—Can we hear the deliberations of this meeting, but not for publication?

The Chairman:—Mr. Milner, probably you would like to withdraw the resolution?

Mr. W. A. J. Milner:—Yes, I withdraw it.

The resolution was, by leave, withdrawn.

The meeting then went into committee to receive the report of the Sub-Committee, which was approved, and the Secretary was instructed to circulate the report to District Associations.

DRAWBACK OF IMPORT DUTY ON PLYWOOD CHESTS.

The Chairman:—A short time ago, the Customs Authorities notified that the Rules governing the application for drawback of tea chests were to be revised, and that the new revision was to come into force as from 1st August, 1932. These revised Rules would have made it even more difficult to obtain drawback than it is at present, and so that we should be able to discuss the matter further, through the kind offices of Mr. James, the Collector of Customs was persuaded to postpone the introduction of the new Order until the 1st of October. The present Rules are very difficult and costly in application, so much so that of late it has only been found to be a paying proposition to claim drawback at the Port of Tuticorin. The North Indian Tea concerns abandoned all attempts at obtaining drawbacks in 1928. In South India we continued until about eighteen months ago, since which date drawback has only been economically obtainable at Tuticorin.

This subject was prominently before the Indian Tea Association in 1928, and when they found that it was very difficult to recover drawback, they asked that the Government of India should make good to the Industry the loss accruing from the withdrawal of the drawback by means of a corresponding reduction in the import duty on tea chests. A reply received from the Central Board of Revenue then was that the ordinary procedure regarding the grant of drawback had been applied to tea chests and that the failure of importers to comply with the provisions of the law—by identifying the goods to the satisfaction of the Customs Collec-

tor—afforded no reason for a reduction in the import duty. In the face of this, it would appear to be useless approaching the Government of India again, except that we now have great difficulty in carrying on the Industry in the face of bad prices, and we can justly approach the Government again on this subject, especially as the duty was imposed largely as a protection to the Indian Plywood Industry, which, during the past three years, has been unable to supply our needs either in quantity or quality nor are they able apparently, to compete with the low price of imported chests in spite of their protective duty. The plight of the Indian Tea Industry is so acute, that it would appear to be unfair to tax our industry any further in order to bolster up a small indigenous industry, which, after four years of protection, has failed to meet the demands of the Tea Industry.

I will now ask Mr. Wallace to move his resolution which reads:—

"That the U.P.A.S.I. do enter a strong protest against the recent notification of the Collector of Customs, Madras, disallowing the further drawback on imported tea chests after October the 1st, 1932, as involving a serious additional burden to the Tea Industry at a time when prices have reached an unprecedentedly low level; and that representations be made immediately to the Government of India with a view to obtaining a reversal of the Collector's order or alternatively to secure a corresponding reduction in the import duty of tea chests."

Mr. J. C. Blackham:—I second the resolution.

Mr. H. J. Walmesley:—May I ask you to include "rubber chests?"

Mr. J. S. B. Wallace:—Have I the permission of the meeting to do so?

Permission was granted.

The Chairman:—It is now proposed by Mr. J. S. B. Wallace and seconded by Mr. J. C. Blackham:—

"That the U.P.A.S.I. do enter a strong protest against the recent notification of the Collector of Customs, Madras, disallowing the further drawback on imported Tea and Rubber Chests after October the 1st, 1932, as involving a serious additional burden to these Industries at a time when prices have reached an unprecedentedly low level; and that representations be made immediately to the Government of India with a view to obtaining a reversal of the Collector's order, or, alternatively, to secure a corresponding reduction in the import duty of Tea and Rubber Chests."

I will put the resolution to the meeting.

The resolution was carried.

PREFERENTIAL DUTY ON TEA.

The Chairman:—Thanks largely to the pressure brought to bear by the various Planters' Associations in India and London, the Chancellor of the Exchequer included a preferential duty on Tea in the United Kingdom in the last budget, and the desirability of a similar preference being introduced throughout the Empire, especially in Australia, has been prominently brought before the delegates to the Ottawa Conference.

I have no resolution before me on the subject. I do not know whether anybody wishes to speak on it?

Mr. W. A. J. Milner:—I would like to ask if it is too soon to move in the matter of raising the preferential duties?

The Chairman:—I really do not know, Mr. Milner. Have you any resolution to move?

Mr. W. A. J. Milner:—No Sir.

PREFERENTIAL DUTY ON COFFEE.

The Chairman:—The Executive Committee have been in correspondence with the South Indian Association in London in order to obtain for coffee a similar preference to that which Tea now enjoys in the United Kingdom. The South Indian Association have taken up the matter energetically at Home, and we are awaiting further advices as to what success is likely to attend their efforts. The question of Empire preference for British grown coffee has also been made a subject of reference to the delegates to the Ottawa Conference. On this subject the Coorg Association ask permission to move the following resolution:—

"That this Association greatly appreciates the steps taken by the South Indian Association in London to form a Sub-Committee to deal with the question of preferential treatment for Empire grown coffee, and requests the Sub-Committee, as the present preference is only $\frac{1}{4}$ d. per lb., to urge the Government to take immediate steps to increase the import duty on foreign grown coffee from $1\frac{1}{4}$ d. to $2\frac{1}{4}$ d. per lb., or to such sum as may be agreed upon by the Sub-Committee after consultation with the Empire Producers' Association."

Permission was granted.

Mr. J. S. H. Morgan:—Coffee Planters would like to express their thanks to the South Indian Association in London for bringing to the notice of the people at Home and the Indian delegates to the Conference that we are in favour of an increased duty on foreign coffee. The actual consumption of coffee at Home is something like 16,000 to 17,000 tons and it is on the 50/50 basis. The question arises as to whether the import duty is going to decrease sales at Home by making it more expensive to the consumers. I do not think it would. The present difference works out to only a farthing a pound. I take it that all Coffee Interests

certainly want this figure to be increased to a penny a pound or more. I see from the market reports that Brazil is bringing a large amount of coffee into London, and I do not see why Brazil should not pay for doing so.

Captain E. H. A. Travers-Drapes:—I second the resolution.

The Chairman:—I will put the resolution to the meeting.

The resolution was carried.

The Chairman:—Well, gentlemen, you have worked very hard to-day and I am now going to let you off. We shall meet here to-morrow morning at 10 o'clock.

Second Day, Wednesday, 17th August, 1932.

The Meeting re-assembled at 10 a.m.

INDIAN TEA CESS COMMITTEE.

The Chairman:—Mr. W. M. Orton, Superintendent, Indian Tea Cess Committee, has come here this morning and he is going to tell us about the work done by the Indian Tea Cess Committee in South India.

Mr. W. M. Orton:—The work done during the past year may be grouped under the following headings:—(1) Villages and Shandies; (2) Bus Routes; (3) Exhibitions; (4) Bulking and packing tea for propaganda work; and (5) Bad and Imitation Teas.

1. *Villages and Shandies*:—In June last year work in bazaars in large towns situated on railways was discontinued and the five parties which had been engaged on this work were transferred to the new work in villages and shandies. As the majority of these villages were on or near bus routes away from the railway, it was necessary that transport be provided. In July last year 5 motor buses were supplied and village work was commenced in earnest. In July also, the staff which had hitherto been engaged on railway work in South India was transferred to bus routes—making in all, six parties engaged on this new work in towns and villages along bus routes and wherever it was possible for our buses to go within the area in which we were working.

With Bangalore as a centre these six parties have introduced and carried on our work over a radius of nearly 200 miles: Throughout Mysore and into Anantapur District to the North; through Mysore into Coorg and Coimbatore District to the West and South-West; through Mysore and Salem District and into Chittoor and North Arcot Districts to the East and North-East; through Salem District into Trichinopoly and Coimbatore Districts to the South. In this direction the whole area lying north of the Cauvery between Bhavani and Trichinopoly is now being worked. Work has been introduced and is being carried on in 270 towns and villages with populations varying from 500 to 15,000. Tea has been supplied to 1,926 dry tea shops and 334 liquid tea shops, the majority of which did not sell tea prior to our arrival. "Hot Tea" Boards have been fixed in prominent places in front of practically all liquid tea shops, and enamel "Good Tea" Boards have been fixed at the majority of the dry tea shops. Our Posters have been fixed in prominent places in almost all the liquid and dry tea shops—wherever space was available for this purpose.

There has been an increase in the consumption of tea in practically all the towns and villages where work has been carried on. In several towns, where at first we were only able to put in one or two chests, the stockers are now purchasing in 5 and 10 chest lots. In many villages where at first we were only able to put in two or three lbs., chests are now being purchased. In certain towns the sale of Standard Tea has decreased, but the sale of distributors'

teas has increased. This is as it should be, and when we are sure that tea drinking is established amongst the majority of the people in these places and that distributors are supplying their requirements, our work will be discontinued there.

During the year 66,064 demonstrations "How to prepare good tea" have been given. 330,320 cups of liquid tea have been distributed "Free." 230,774 pice packets and 1,270 lbs. in red tea bags have been sold to consumers. From June to December 21,692 lbs. Distributors' tea was sold to dealers. Standard tea was then introduced and up to the end of June 1932, 19,860 lbs. of this tea was sold to dealers.

Every important weekly shandy held within the area we are working has been regularly visited, and itineraries have been so arranged that the smaller shandies have been visited whenever possible. Practically every shandy held at a place accessible by bus has been visited. At these shandies a large number of people living in remote villages, where it would be impossible for our buses to go, have seen our demonstrations "How to prepare good tea," and have bought pice packets and red tea bags and taken them to their homes. Tea has thus been introduced into most remote villages. Our aim at shandies has been to induce stall keepers to sell both liquid and dry tea, and at several places we have been successful. There are quite a number of restaurant keepers and hawkers whose sole business is to go from shandy to shandy selling refreshments. Many of these have been induced by us to sell tea.

2. *Bus Routes*:—Work under this heading should really be included under "Villages and Shandies" and not as a separate activity, as, with the exception of one party which has not yet been provided with a bus and cannot therefore visit villages and shandies, each party carries out propaganda work along all the bus routes within the area it is working. Along bus routes particular attention is given to liquid tea arrangements for bus passengers. At bus stands and at places where buses halt *en route*, refreshment-stall keepers have been induced to provide liquid tea for passengers. Of the 334 liquid tea shops previously mentioned in this report, the majority are situated at or near to bus stands and halting places.

3. *Exhibitions*:—Demonstration stalls were maintained at seven exhibitions. At these stalls people were shown how to prepare good tea and the liquid tea prepared was distributed "Free." Pice packets and red tea bags were sold. Samples of distributors' teas which had been sent to us for this purpose, were exhibited. At four exhibitions a Model Tea House was maintained in addition to the Demonstration Stall. Our object here was to show how a liquid tea shop should be maintained and how this could be done at a profit even when selling 5 oz. cups of tea for half an anna. These Stalls attracted a large number of people and in all 3,132 cups of tea were sold. Five gold medals, two silver medals and seven certificates of merit were awarded to the Indian Tea Cess Committee by the different Exhibition Authorities for "Best method of Advertising Tea."

The Exhibitions attended were:—

1. Madras Prohibition Exhibition—Model Tea House and Demonstration Tea Stall.
2. Mysore "Dasara" Exhibition—Demonstration Tea Stall.
3. Trivandrum "Arts and Industrial" Exhibition—Demonstration Tea Stall.
4. Calicut "All India Swadeshi" Exhibition—Demonstration Tea Stall.
5. Calicut "Health" Exhibition—Model Tea House and Demonstration Tea Stall.
6. Trichur "All India Swadeshi" Exhibition—Model Tea House and Demonstration Tea Stall.
7. Conjeevaram "Buy Indian League" Exhibition—Model Tea House and Demonstration Tea Stall.

4. *Bulking and Packing Tea for Propaganda Work*:—In September last, following the annual meeting of the U.P.A.S.I., it was arranged through the Secretary that District Associations should supply us with 6,000 lbs. B. P. tea monthly at As. 6 per lb. F.O.R. Bangalore. This tea was to be packed by estates in patent, lead lined chests of a standard size, 11 x 11 x 14 inches containing 20 lbs. as the same chests had to be repacked and used again after tea from the different estates had been bulked to destroy its identity. This bulked tea, which we have called "Standard" tea and which has been used only for propaganda purposes in opening up and developing new markets, was sold by us in chests at As. 8 per lb. to Stockers. Stockers in turn sold this tea "Loose" to retailers at As. 9 per lb., and retailers sold to the public at As. 10 per lb. Stockers buying 5 or 10 chests at a time were allowed a discount of 3 and 6 pies per lb. respectively. The strictest economy has been exercised in expenditure on bulking, repacking and distribution and up to 30th June, 1932, the cost of this work has been As. 1/7.3 per lb. The cost of tea to us has therefore been As. 7/7.3 per lb. and it has been sold at a little under As. 8 per lb. No charge has been made against this account where our own buses were used for transport.

Owing to certain estates having to communicate with their Directors at home before tea could be supplied, some delay was experienced and it was only in November that tea was received, and then only about half the quantity agreed upon. This has proved fortunate as in asking for 6,000 lbs. monthly at the commencement of this new work, we had over-estimated our requirements. The amounts actually sold monthly have been:—

November 1931 ...	383 lbs.	March 1932 ...	2,080 lbs.
December " ...	1,988 "	April " ...	2,440 "
January 1932 ...	3,049 "	May " ...	3,020 "
February " ...	2,680 "	June " ...	4,220 "

and last month, July, the amount sold was 5,260 lbs.

Sales are gradually increasing and our requirements are now from 5,000 to 6,000 lbs. monthly. For the three months ending September 1932, about 18,000 lbs. are required, but the tea promised by estates for this period amounts to only 10,160, and it is by no means certain that all this will be received. For the quarter ending December 1932 only 4,700 lbs. has been promised and our requirements will be about 18,000 lbs. It will be seen therefore that arrangements for further supplies of tea must be made without delay.

5. *Bad and Imitation Teas*:—The Madras Prevention of Adulteration Act has been extended to 18 towns in the Presidency. Salem was added to this list in April last. At Produtur, however the Act has only been extended with regard to ghee, butter and milk, so that the Act so far as relates to tea is in force at 17 towns. During the past year all these towns have been regularly visited by our Bad Tea Inspectors, who have co-operated with the Health Authorities by bringing to their notice doubtful teas which they had detected. The Health Authorities have in practically all instances taken samples of such teas and submitted these to the Public Analyst for testing, who in turn has informed the Health Officer concerned, of the result of the test. Up to this point the machinery has worked smoothly. The difficulty has been to get the Municipal Authorities, with whom the matter rests, to prosecute; and, where offenders have been prosecuted, to get Magistrates to impose adequate fines. The following is a report published in the "Madras Mail" dated 5th July, 1932.

"Instances have been brought to the notice of the Government in which the provisions of the Madras Prevention of Adulteration Act have not been adequately utilised in dealing with cases of vending adulterated foodstuffs. In some cases the local executive officers concerned, for one reason or another, have withdrawn the prosecutions after they had been sanctioned, and in other cases they did not take advantage of the provision of the Act which authorises them to cause stocks of such foodstuffs to be seized and brought before a Magistrate, with a view to preventing their further sale.

"The Government desire to point out to the local authorities concerned the danger to public health arising from attempts by the unscrupulous traders to sell adulterated foodstuffs, and the need for strictly enforcing the provisions of the Act in order to check this evil.

"In particular the Government emphasize the necessity and importance of prosecuting all vendors of adulterated foodstuffs, and the inadvisability of withdrawing prosecutions which have been sanctioned."

The following statement shows the number of dealers prosecuted in different towns, and the fines imposed.

PLACE.	No. of Prosecutions.	Fines imposed.
Madras City ..	5	3 fined Rs. 30, 10 and 5 respectively. 2 cases pending in court.
Madura ..	11	5 fined Rs. 15 each. 3 " Rs. 10 " 3 " Rs. 5 "
Trichinopoly ..	No bad tea detected.	
Virudhunagar ..	1	Fined Rs. 7.
Karaikudi ..	No bad tea detected.	
Kumbakonam ..	No bad tea detected.	
Ootacamund ..	7	2 fined Re. 1 each. 5 discharged by Magistrate.
Mettupalaiyam ..	1	Discharged.
	One dealer fined Rs. 15, for refusing to sell sample to Health Authorities.	
Coimbatore ..	1	Fined Rs. 25.
Calicut ..	3	1 fined Rs. 20. 2 " Rs. 5 each.
	Two cases not prosecuted by Municipal Authorities.	
Tellicherry. ..	4	1 fined Rs. 10. 2 " Rs. 5 each. 1 " Rs. 3.
Mangalore ..	1	Pending in court.
Guntur ..	..	1 case pending.
Vizagapatam ..	1	Pending in court.
Rajahmundry ..	1	Pending in court.
	One case warned by Chairman and stock destroyed.	
Nellore ..	1	Fined Rs. 15.
Salem ..	1	Pending in court.
	Two cases warned by Chairman and stocks destroyed.	
	Three cases pending.	

At a Conference held at Guindy, Madras, on 12th September 1931, between the Director of Public Health, the Public Analyst, Messrs. Brock, James and myself, it was decided that Government be urged to extend the Act to more towns. Except for Salem, where the Municipal Authorities themselves asked for this, the Act has not been extended.

In the Travancore State, though the Prevention of Adulteration Act was passed by the Legislative Council a year ago, rules under the Act have not yet been framed. Our Bad Tea Inspector has twice visited this State and has detected cases of adulteration of tea, but until rules under the Act are framed, no action can be taken against such dealers.

Regarding Cochin State, a resolution was passed at the last annual meeting of the U.P.A.S.I. that the Cochin Government, through the Planting Member of the Legislative Council, be asked to introduce a Food Adulteration Act. So far as I am aware such an Act has not been passed.

Regarding Mysore State, under the existing Adulteration of Food Regulation, action could be taken with respect to the adulteration of tea if the Mysore Government would issue a notification including tea in the list of articles of food, the adulteration of which is prohibited, and by extending the Regulation in respect to tea to those towns to which the Regulation has already been extended for other food stuffs. I understand that the President of the Mysore Chamber of Commerce is in correspondence with the Government in this connection.

The Chairman:—On your behalf, I should like to express our thanks to Mr. Orton for his lucid report on the work done by the Indian Tea Cess Committee in South India. If anybody would like to ask any questions, Mr. Orton will be only too ready to reply to them.

Mr. L. Newcome:—With regard to this very interesting subject I should like to ask one question. Mysore are very keen about it. Is it possible to apply the Food Adulteration Act for the destruction of all faulty Tea, to which I would add Coffee also? In our opinion these small fines are unnecessary and, unless stocks are destroyed, there will be further adulteration. That is the point which we should like to see enforced. The Food Adulteration Act will be far more effective if we concentrate upon destruction rather than on fines.

Mr. W. M. Orton:—The Food Regulation in Mysore authorizes the destruction of stocks. That was one of the points which was brought to the notice of the Madras Government, namely, that Magistrates were not ordering the destruction of stocks. With regard to Coffee I might say that some months ago—either in December or January—I called upon the Chief Secretary to the Government of Mysore, and urged that a Notification be issued with regard to Tea, by including Tea in the list of Articles already prescribed by Government. The Chief Secretary said that what he wanted was a definition for the standard of purity of Coffee. He had got the definition for Tea, and he said that he was waiting for a definition for Coffee, and when that was given, he would issue the necessary Notification. Apparently he has not got it yet, because the Notification has not been issued. I brought this matter to the notice of the Mysore Government when I visited that place in January.

Mr. L. Newcome:—Thank you very much.

Mr. J. S. B. Wallace:—I would like to ask one or two questions. If you are going to continue to buy Tea for the Commissioner to use, and only a certain amount of which is practically booked for the next few months, can we not promise here now definite stocks of Tea to be supplied to him? Do you agree to Mr. Orton writing to Tea Estates direct and getting Tea from them whenever it is required? I believe the Central Travancore Planters' Association is prepared to supply what is wanted if and when it is applied for.

The Chairman:—I think that that is the best way of doing it. I should like to suggest that Mr. Orton be asked to write for Tea when it is required. Does everybody agree to that?

The meeting agreed to this proposal.

Mr. J. S. B. Wallace:—Another thing I would like to ask is, how far is the Indian Tea Cess Advisory Committee empowered to commit the U.P.A.S.I.? It is proposed to extend the propaganda campaign to the Mill areas in Trichinopoly and Madura, and another idea is that the Tea Cess Committee should pay for the erection of a Tea Room in the Madras Mill area. I think Mr. Orton has been in correspondence with Mr. Shiva Rao on this subject, and the Mill Area Welfare Committee has suggested that the Tea Cess Committee should erect a Tea Room in the Social Club in the Mill Area at which Tea should be supplied. The cost will be about Rs. 1,500. This matter was referred to the Tea Cess Committee in Calcutta, and they have referred it to the U.P.A.S.I. Tea Cess Advisory Committee. We do not know very much about it. I think a good deal of propaganda work could be done in the Mill Areas with very successful results. I would like to know whether you authorize the Tea Cess Advisory Committee to recommend this expenditure?

With regard to the work in connection with the rubbishy tea, is it worth while the Tea Cess Committee Staff going on with that work? There has been a good deal of expenditure on that work, and they find that the benefit derived in results has been very, very small.

The Chairman:—We first have to confirm the appointment of the Advisory Committee which was appointed by the Executive Committee. This has to be done immediately. The present Advisory Committee consists of Messrs. Wallace, Milner and Johnson and they have been asked to carry on the work on our behalf for some months now, so I would ask you to confirm their appointment for the next twelve months.

The meeting agreed to this proposal.

The Chairman:—Now Mr. Wallace has brought the subject of the committee's work in regard to rubbishy tea. It strikes me that some good might be done if we frame a resolution here and get Mr. James to do what he can to induce Government to issue more stringent orders, and to point out the inadequacy of the fines

inflicted so far. I do not know if this would be possible. Perhaps Mr. James will tell us what could be done.

Mr. F. E. James:—I think it would probably be helpful if the U.P.A.S.I. pass a resolution calling the attention of the Government to the light penalties which have been imposed under the Act; but still the wider question remains which Mr. Wallace has referred to, namely, whether it is worth while putting up the money that you are spending now in trying to get the Food Adulteration Act properly operative. There are proposals, I believe, under the consideration of the Government at the present moment to extend the operation of the Food Adulteration Act throughout the whole Presidency, and I know that the Public Health Committee is very keen on the question. But even if you extend the Food Adulteration Act to the whole Presidency, you are still up against the difficulty to which Mr. Orton has referred. You cannot get convictions. There are more reasons than the reason which has been advanced by Mr. Orton; one of the fundamental reasons is the extraordinary nature of the Code of Procedure in this country in regard to trade and commercial cases. They do not care what your troubles are. It is a most difficult thing in this country to get a conviction from a Court under any Section whatsoever. If this is so with regard to serious matters, it is doubly so with regard to matters which are not at all serious in the eyes of the Indian populace at the present moment. Unless you have a stronger public opinion as regards the Food Adulteration Act, I am perfectly certain that even the extension of the Food Adulteration Act to the whole Presidency is not going to enable you to grapple with this question of adulteration of Tea. That is my personal opinion, and you may take it for what it's worth. It has also occurred to me lately that probably money would be better spent on the positive side of propaganda in popularising good tea. You can spend unlimited sums in trying to secure prosecutions that are on the negative side of propaganda, and it is very doubtful whether the results would justify even the expenditure now being incurred on, for example, what you call (I hope not humourously) "Bad Tea" Inspectors. I think that we ought to continue to address the Government to go on with the extension of the Act, and we ought to bring to the Government's notice the position where you have these light penalties imposed. I do not think there is any harm in doing that.

The wider question still remains to which Mr. Wallace has referred. Mr. Orton's experience is that the best way to get rid of bad Tea is to put in good Tea. When we find bad Tea in a town, the sale of that Tea will be stopped when we put in good Tea.

Mr. R. N. W. Jodrell:—What is the maximum fine which could be inflicted under existing orders?

Mr. F. E. James:—I think—I am not absolutely sure—it is in the region of Rs. 500. I know it is up to Rs. 100, any way, but I think more.

Mr. R. M. Greig:—May I ask Mr. James whether there is not indisputable evidence that spurious Tea has been sold under a specified garden mark, and whether it would not be possible for the U.P.A.S.I. to take up a case or two of this sort in order to put a stop to this practice, or, in any case, to make an example of those people who do so? It is a very bad practice in the West Coast at the present moment for this spurious Tea to be marked with some garden mark which is acceptable to the market. There are, as a matter of fact, several such cases going on at the present time in Travancore which, I am afraid, will come to nothing. Does Mr. James think that in British India a similar case would be more successful?

Mr. F. E. James:—It is not an easy thing to say. If your garden mark is a registered one, there might be some chance of a serious punishment being inflicted for the infringement of a copyright. But the difficulty is always with regard to the contents of the case, which do not clearly indicate that they do or do not come from a particular garden. How can you prove that? You would have to prove that such leaves are not under any circumstances grown in or near the garden in question. It is a terribly difficult thing to prove, and whether it is worth while attempting it as a test case I do not know, unless your garden mark is registered.

The Chairman:—You have heard what Mr. James has said about this campaign against rubbishy Teas, and your Sub-Committee want to know whether this work should be carried on or not. Mr. Orton thinks that it should be gone on with, but not to have, as at present, whole time men on the work, but half-time men. I should like to know what the opinion of this meeting is? Are we going to continue this campaign against rubbishy Teas or not? Will somebody frame a resolution to Government or will Mr. James suggest something?

Mr. F. E. James:—May I make one suggestion. I happen to know what is in the mind of the present Director of Public Health in Madras. He wants to try and get the Act extended throughout the Presidency, and secondly, to urge the Government and all Local Authorities to embark upon a campaign against the adulteration of food. The Director of Public Health is of the opinion that a campaign directed simply against the adulteration of Tea will not have half the public value, but that a general campaign against all food adulteration will have, and I think that if you offer your fullest co-operation to the Public Health Authorities in conducting the campaign against the adulteration of all kinds of food, including Tea, I think that that would be a better way of getting the support of public opinion generally. I think that will be of the greatest value, and be greatly appreciated by the Public Health Authorities.

The Chairman:—Will anybody say whether he wishes this campaign to be carried on by the Tea Cess Committee or not? Our Sub-Committee wants to know this.

Mr. R. Fowke:—We ought to be guided in this matter by Mr. Orton and our Sub-Committee, and if they consider that this intensive campaign is not worth the money, then, we ought to employ only half-time men as suggested.

The Chairman:—Are you prepared to leave this question to the Sub-Committee? I think they are in close touch with the people who are doing the work and you have appointed them for this purpose.

The meeting agreed to the proposal.

The Chairman:—Now with regard to the question of incurring an expenditure of Rs. 1,500 in the Mill Area in Madras. The Sub-Committee want that point to be settled. Will you again leave the matter in the hands of the Sub-Committee saying that we are willing to spend the money if they consider it necessary? Does that meet you Mr. Wallace?

Mr. J. S. B. Wallace:—Yes.

The meeting also agreed to this proposal.

The Chairman:—Mr. Orton will explain for what experiments this money is required?

Mr. W. M. Orton:—One of the proposals under contemplation is to open a Social Workers' Tea Club in Madras. That Club—the Workmen's Social Club—is to be introduced in the different Mill Areas where workmen may gather at night time, or in the evenings, in preference to the toddy shops. The building which they propose to be put up is a Tea Stall, which will not only cater for Tea-drinking Patrons, but will also provide a Reading Room and a Gramophone, and they propose to have a Loud Speaker so as to make it as attractive as possible. They suggest that we should help them financially in putting up one model building as an experiment, and that they will then raise funds to put up similar buildings if it proves successful. The Tea Stall, which will be the first Tea Stall, will be run by ourselves until such time as we have got it properly established, and then probably we will hand it over to a contractor. There is this question to be considered. So long as we are running it, only Tea will be sold. Now the Tea Cess Executive Committee and the Commissioner have raised the point, have we any guarantee that, when we withdraw, the Tea Shop will not be used for selling other things?

The Secretary:—A short time ago the new Agent of the M. & S. M. Railway asked me privately whether there would be any likelihood of the Indian Tea Cess Committee re-opening their Tea Stalls at the Railway Stations of that Railway? Apparently the late Agent was not quite in sympathy with them, and it was at the Railway's request, I understand, that the Indian Tea Cess Committee stopped their work on the M. & S. M. Railway. But the new Agent told me privately,—and he gave me permission to

pass that information on to you, although he did not want to put it up officially—that he would do all he could to help if we thought it worth while to re-open these Stalls at the Railway Stations of that Railway. I do not know whether the Sub-Committee has taken up this question?

Mr. J. S. B. Wallace:—We discussed the matter and we recommended that they should be started.

Mr. L. Newcome:—There are some estates that have already got established markets for Tea, and I find that their Tea has been under-sold by the Indian Tea Cess Committee in the same villages. I can give Mr. Orton two concrete cases, and if necessary, I will introduce him to a gentleman here who will be able to tell you the name of the merchant who bought these Teas from the Indian Tea Cess Committee at a lower rate than he had been paying for the Estate Tea and consequently the Estate lost its own established connection.

Mr. W. M. Orton:—I would like to know what those two concrete cases are, because without knowing them I cannot give a reply. If any concrete cases are brought to my notice, then, such a procedure will be put a stop to.

Mr. L. Newcome:—I would introduce you to Mr. Brown of the Kadur Estates who is here at this moment.

The Chairman:—It would be a simple thing if those estates that have any complaint to make would write up to the Sub-Committee, when Mr. Wallace and Mr. Orton will go into the question and do everything they can to put a stop to this practice.

The meeting agreed to this procedure.

The Chairman:—I now propose this resolution from the Chair:—

“That this Association draws the attention of the Government of Madras to the growing evil of food adulteration throughout the Presidency; the need for the extension of the Food Adulteration Act and for the infliction of heavy penalties on those convicted of selling adulterated foodstuffs; it further desires to impress on Government the need for widespread propaganda on the evils of food adulteration, and offers its whole-hearted co-operation, in organizing such an endeavour.”

The resolution was carried.

COFFEE PROPAGANDA AND PROPOSED CESS.

The Chairman:—Early this year the Coorg Planters' Association brought forward a proposal that £1,500 might be raised from Coffee imported into England from India as a contribution towards the Empire Marketing Board provided the latter would take up the propaganda of South Indian Coffee as an Empire product. Before approaching the Empire Marketing Board, it was first thought advisable to address all Coffee Associations to ascertain what support

might be received for this scheme. Only a comparatively few individual Planters in some districts were prepared to support the scheme, hence the matter has not been carried any further. Now the Coorg Planters' Association have tabled the following resolution:—

(a) "That this Association is in favour of an Annual Cess being levied on the total annual production of Coffee in India, and that the money so raised be used entirely for the purpose of advertising Indian Empire Coffee in India and abroad. That the Cess be levied on a production basis and to be at the rate of 3 annas per cwt."

(b) "That the U.P.A.S.I. do get in touch with the Coffee Growers' Association and all local Governments interested in the production of coffee, with a view to preparing and forwarding a memorandum to the Government of India requesting them to form and to control a Coffee Cess for the purpose of advertising Indian Empire Coffee in India and Abroad."

Mr. J. S. H. Morgan:—The Coorg Planters' Association are strongly in favour of this scheme or some other such scheme to be carried out for the purpose of Coffee Propaganda. The subject of coffee propaganda has been brought up before meetings of this Association many times in the past, both in 1929 and 1930, but so far with little or no definite results. I think that all coffee producers must be aware of the fact that their coffee is not being marketed to its full value or advantage, and they must also be aware that East African Coffee is rapidly gaining ground in the world's markets and taking the place of ours, and unless some definite action is taken by Indian growers to advertise and show the coffee consuming world in general that East India can and does still produce one of the best coffees, our name is likely to deteriorate and our prestige be lowered by those producing countries with a more vigorous and combined advertising policy.

When speaking of coffee producers in India, I mean both Indian growers and Europeans; and this scheme which I venture to place before you is made out with a view to collecting a small cess from all growers in Southern India on the production basis, so that the whole Planting Community may gain by an organised campaign of advertising, to which they all subscribe on an equal basis and have equal control. The main difficulty in organising coffee in India is that the growers are so very widely scattered and that there are no big companies, and the majority of planters are small owners who are very difficult to get at and to persuade to think collectively. The U.P.A.S.I. have not many Indian growers in their Association. The Coffee Growers' Association, which represents about 40,000 acres of both Indian and European coffee, is as yet young, but can do a great deal towards collecting opinions from and through the Indian growers which they have. But members from each of our District Associations know fairly thoroughly the Indian growers adjacent to them.

Before the Government undertook legislation to start the Indian Tea Cess they required 80 per cent. of the planted area in Tea to agree. If the Government wish the same in coffee before they legislate for the proposed coffee cess, I have no doubt it would not be difficult for this Association to take the matter in hand immediately. Suitable forms could be supplied to each District Association that has coffee in its area, and these could be distributed to their members asking them to get replies from their Indian neighbours as to their acreage, and whether they would agree to a cess of, say, 3 annas per cwt. I think by this means we should get replies in fairly satisfactory. At the same time I would suggest the Chief Commissioner of Coorg, the Commissioner of Coorg, the Dewan of Mysore and the Heads of other Local Governments, who are interested in coffee, should be approached on this subject and their help solicited, and perhaps Dr. Coleman might give us some idea as to how this scheme would be accepted by the Indian Planters of Mysore. From this you will realize that I have taken it for granted that all Coffee Estates subscribing to the U.P.A.S.I. are in favour of this Cess for propaganda purposes.

The question of the amount of Cess which would be sufficient without being too heavy a charge on producers is an important one, and I do not think that anyone can object to the sum of 3 annas per cwt. which, on an average annual production of 12,000 tons, will give to the coffee cess funds Rs. 45,000 excluding cost of collection by Government, which in the case of the Indian Tea Cess amounts to 1 pie in the rupee. Now this sum I have suggested should be equally divided for advertising in Europe through the Empire Marketing Board, and in India through the organisation afforded by the Coffee Growers' Association. There possibly may be some quibble in dividing the sum equally. Also questions might arise as to whether the Empire Marketing Board and the Coffee Growers' Association are the right bodies to approach to deal with any sums allotted to them. These questions could be settled by the Coffee Cess Committee, which would have to be formed, but I do not think there can be any question raised against the idea of advertising both in India and abroad. The collection of this Cess should not be difficult or expensive. I would suggest all Curing Firms be approached to undertake to collect the specified Cess on all coffee cured by them. This would account for a great deal, but not for those who deal in Native Coffee in local markets. For these I would suggest that, at the end of their cropping year, every Estate should fill in a form, to be supplied by Government, stating how much coffee they produced, how much was sent to the Curing Firms and how much was sold locally. This form could be sent together with, say, the annual land assessment form, and from it the Government could then see how much would have to be collected from individuals on their local sales. The cured coffee would then have been accounted for by the Curers. They on one hand could remit the amount collected from cured coffee to the Coffee Cess Committee, and the remainder, i.e., Native Coffee, would be collected by the Land Revenue Officer, and again remitted to the Committee.

I am sorry that we have been unable to distribute the main outlines of this scheme to District Associations before this Meeting, but if Delegates wish to refer back to their Associations I can only ask them to put it to their members as strongly as possible and to point out the utmost importance of all coffee producers in India combining on this question and so keep and improve on the good name of Indian Empire Coffee in the World's Markets. Now it has been pointed out at the Coffee meeting the other day that the Government would not even consider the question of collecting the proposed Cess from all Coffee Planters. There are 98,000 acres of Indian owned Coffee and 62,000 acres of European Coffee in South India, and as an organized advertising campaign to promote the sale of Indian Coffee is bound to improve the industry in India in general, and as the Government have the precedent of the Indian Tea Cess which is collected for the same purpose, I do not see why they should not, as in other countries, help the Indian Growers and the European Growers in South India. To my mind I think the only fair way of collecting this Cess is on all Coffee produced in India. But, if on the other hand, this Meeting considers that the collecting or the organizing of a Coffee Cess on the above lines is impracticable, then the other alternative is a Cess collected on Exported Coffee. This to my mind is an unfair way. The exported coffee will have to pay a Cess which the local sales will benefit from and not pay anything for it. On the other hand the difficulty of obtaining the 80 per cent. majority in the case of exported coffee is largely done away with, as I understand the Curers and one or two large Traders could easily give this information to Government. The Cess required in this case I would suggest being four annas per cwt. or Rs. 5 per ton. Still taking the average annual production as 12,000 tons, and the average exports as 8,000 tons or two-thirds, would give Rs. 40,000 cess from exported coffee alone.

Well, gentlemen, I consider that this subject a very important one, it will be possibly difficult to carry it to a successful conclusion. But I hope this will not deter us from agreeing to the main principle. I would like the other members of Coffee to put forward their ideas.

Mr. W. K. M. Langley:—I should like to second the resolution. I think Mr. Morgan has fully stated the case and I think we must all agree with him in the stress he has laid on the necessity for propaganda, more particularly in the United Kingdom, because in this country we have at present owing to the possibilities of disease a protected market. Mr. Morgan has fully stated the case for propaganda on general grounds, and I do not think there is anything that I could add to it at this juncture. The propaganda work should be carried out, and it seems to me that that is one of the most important duties of the Coffee Growers' Association which we hope to see formed on a larger scale within the near future. At the present time I do not think I have anything further to add, except that, as far as my Firm is concerned and as a Curer—and, I think, I can speak on this matter on behalf of all the Curers—this proposal will receive the fullest support from the Curers and from the big Dealers on the Coast, and that in order to further the scheme, I feel that they will regard this as part of the duty they owe to their constituents.

Captain E. H. A. Travers-Drapes:—I am sorry to inform you that my Association has not had any information of this scheme. It is only at this meeting that we have heard about it. Under those circumstances, I do not feel, though I would personally like to support the scheme myself, I would be justified in doing so on behalf of my Association. At the same time I should like to say that I believe every member of my Association would like to support such a scheme, but it would perhaps, for the sake of unanimity, be better if this resolution was referred back to the District Associations. For another thing, there are one or two weak points about it, which might, perhaps, be got over by discussion at the District Meetings. For instance, if the Coffee Growers' Association succeed in selling more coffee in India—and it is a known fact that the exports are decreasing largely on account of the increasing consumption in India—it seems to me that your Cess is going to become less and less if it is levied only on exports. For these reasons, I should like to suggest that this matter might be referred to the District Associations. I cannot understand why we have not heard anything about it. Perhaps it was miscarried in the post.

Mr. J. S. H. Morgan:—Captain Travers-Drapes said that this subject was not circulated to the District Associations. May I point out that this matter came up before our Association only a short time ago and we had not time to distribute it all round. What I would suggest is that we need not state anything definite, as in the first part of the resolution. If the second part of the resolution were accepted, I do not think any harm would be done. You will not be tied down to anything except that you would ask the U.P.A.S.I. to get into touch with the Coffee Growers' Association and all Local Governments requesting them to form and to control a coffee cess for the purpose of advertising Indian Empire Coffee in India and abroad. By that you are not tying yourself down to any definite figure. How else are you going to do it?

The Chairman:—Why not leave out the first portion altogether? It is a great mistake to refer back propositions. You would be delaying them for another twelve months. A resolution like this will not do any harm to anybody. Any delay means practically a delay till the next annual meeting, which means another twelve months hence. You expressed a willingness to support the formation of a Coffee Growers' Association which, I hope, will be very largely increased in the very near future, and I think you should give them power at this meeting to get along with this business, because this business itself is going to take a very long time, and it should not be delayed for the reason of having to refer it back to the District Associations. I trust, therefore, you will vote in favour of it. I have known Captain Travers-Drapes act before without the sanction of his own Association, most successfully too.

Captain E. H. A. Travers-Drapes:—Mr. Chairman, after what you have said, I shall take the responsibility upon myself.

The Chairman.—Have I your permission to delete the first clause and take up the second clause? Will that suit you Mr. Langley?

Mr. W. K. M. Langley.—Yes, Sir.

The Chairman.—It is now proposed by Mr. J. S. H. Morgan and seconded by Mr. W. K. M. Langley:—

"That the U. P. A. S. I. do get in touch with the Coffee Growers' Association and all local Governments interested in the production of coffee, with a view to preparing and forwarding a memorandum to the Government of India requesting them to form and to control a coffee Cess for the purpose of advertising Indian Empire coffee in India and abroad."

The resolution was carried.

INDIAN IMPORT DUTY ON AGRICULTURAL MACHINERY.

The Chairman.—The Central Travancore Planters' Association have the following resolution to move:—

"That this Association continue to press for the abolition of the import duty on machinery imported for Agricultural purposes."

Mr. C. J. Madden.—I should like to ask permission to amend the wording of that resolution slightly and to make it read as follows:—

"That this Association continues to press for the abolition of import duty on certain types of machinery connected with the manufacture of Tea which is one of India's most important agricultural industries."

Tea machinery is mentioned here and we refer to rollers and driers and specific machinery used for Tea manufacture, but if Rubber or Coffee would like it, we are quite willing to add that to the resolution too. At the present moment Tea, Coffee and Rubber machinery pay ten per cent. duty, but, on the other hand, many types of agricultural machinery are at present admitted free into India, and we would like to ask that Tea industry should be included under this heading of free import. There is no doubt about the fact that any assistance rendered in this way will assist this agricultural industry to a great extent, and what the Government loses on the import duty they will gain on the increased prosperity of the industry.

The Chairman.—Is there any machinery that is imported free?

Mr. F. E. James.—There is a long list given in the Tariff Schedule. I think it is with regard to the agricultural implements such as certain types of ploughs, i.e., hand machinery. I am not absolutely sure, but I do not think there is any machinery imported free that is used for other forms of power.

Mr. L. Newcome.—I am afraid I am not quite clear with regard to the object of the proposer of this amendment, unless it is that he fears that the original resolution did not cover Tea machinery, and

that it was not included in the machinery imported for agricultural and planting purposes.

Mr. F. E. James:—I can explain that. I advised the alteration of this resolution along these lines, because it is useless to ask for the abolition of the import duty on all machinery brought in for agricultural purposes. There is no question of that being turned down at once. The only thing that we can do is to detail certain specific types of machinery and to ask that these may be transferred from the present classified list to the free list, and I understand, from enquiries I have made already, that some Authorities think that there is quite a good case for the free import of certain specific types of machinery used for the manufacture of Tea; but you must specify the particular machinery you want to import free. Obviously you cannot hope to get the free import of any and every kind of machinery which is used in connection with the manufacture of Tea or planting purposes or for agricultural purposes. That would include the kind of machinery we saw yesterday for making concrete pipes, etc. You must specify the machines. That is the condition laid down by the Customs Authorities, and we must observe that before we make any definite request to the Government.

Mr. L. Newcome:—The only object I have of speaking again is that, if machinery is going to be specified for Tea, we would like Coffee also to be included in the resolution and the necessary machinery specified. The Mysore Planters' Association have also asked for rubber hose to be included.

Mr. F. E. James:—I would like to suggest that if you are going to put up all these things, you are making a long list. There is not the slightest chance of rubber hose even being considered for a long time. If you make a long list, you will lose your chance. I suggest that we put forward particular types of machinery which we urgently want to be free from import duty.

The Chairman:—Do you want Coffee and Rubber to be included?

Mr. H. J. Walmesley:—It is very unlikely that any rubber machinery will be imported for a long time, and I would not ask for it to be included. I do not think it is necessary.

The Chairman:—It is now proposed by Mr. C. J. Madden and seconded by Mr. R. Fowke:—

"That this Association continue to press for the abolition of import duty on certain types of machinery connected with the manufacture of Tea and Coffee which are two of India's most important agricultural industries."

The resolution was carried.

MARKING OF EMPIRE TEA.

The Chairman:—The Central Travancore Association request permission to move the following resolution:—

"That the U. P. A. S. I. approach the South Indian Association in London with a view to the re-opening of the question

of a compulsory marking order for British Empire Teas sold in the United Kingdom."

Permission was granted.

Mr. W. A. J. Milner.—I hope this resolution of the Central Travancore Planters' Association will be carried unanimously. It seems only too clear that any moderate tariff preference by the United Kingdom cannot be sufficient of itself to restore to the British producer of tea the degree of security which is essential, if the industry is once more to be placed on a profit making basis, and that other steps will have to be taken, of which that suggested in this resolution is, perhaps, the most important and the most certain to produce successful results. It is obvious that the wave of patriotic feeling in the home country in favour of Empire goods has not yet spread to the blenders of tea, whose motto is "Profits before Patriotism." In this connection I cannot do better than quote from a recent leading article in the "Times of Ceylon."

"The blenders persist in demonstrating that they can well afford to buy cheap Java teas for the purpose of blending, because they can, with impunity, adulterate—it is the only word which expresses what is taking place—British grown teas, by blending a disproportionate amount of foreign grown tea, and the helpless consumer is no wiser. He—or as is more often the case she—thinks and hopes that the tea is British grown but the preponderating part of it is cheap foreign tea. The position will, we fear, remain unchanged until, apart from preferential tariffs, the law is amended. What is wanted to-day is legislation, which will insist that the consumer shall have the opportunity of buying teas which are entirely British grown, free entirely from any foreign blend. If Java, despite preferential duties, can place on the Home market Java tea by all means let them do so. But the time has come when we are entitled to insist that such tea shall not be used for blending with British teas. Despite what blenders and vested interests maintain, the supply of Empire grown tea can meet all possible consumption. On this point we cannot do better than quote from the report of the Imperial Economic Committee's Report on tea.

"We have carefully considered the question of the price at which a pure Empire blend, of a quality that will maintain and promote the high reputation of the Empire Product, can be retailed. We are satisfied that for 2s. a pound a thoroughly good household blend of Empire grown tea can be retailed, and that from 2s. 4d. onwards it is possible to retail higher grade blends of Empire grown tea which will successfully compete in quality with any blends, at the same prices, which contain foreign teas as "fillers", and two answers may fairly be made. First, it can be done, because in many cases it is already being done, although, as the consumer is so often not made aware of the fact, both he and the retailers are the losers by this "shopping in the dark." Secondly, while in other sections of our Report we have not underrated either the task or the skill of the large-scale blender, we consider that when, in the face of a net import

in the United Kingdom of 380 million pounds of Empire grown tea, any blender professes to be unable to maintain a pure Empire blend at these prices, he unwittingly pays himself a very poor compliment."

"The atmosphere of the Ottawa Conference is paramount. "Buy British" is no empty sentimental slogan. It is an economic necessity and nowhere it is greater than in the case of the tea industry."

Gentlemen, I think that we will miss a wonderful opportunity if every organization connected with Tea does not represent to the Imperial Government that steps be taken to compel blenders to give the public in the United Kingdom the opportunity of buying teas which are, without camouflage, pure British teas. The spirit of Ottawa gives us a unique opportunity. Are we going to miss it?

I make no apology for quoting the "Times of Ceylon" Leader at such length as it puts the case so ably and eloquently. I trust that this Meeting can see its way to pass the resolution, and that the South Indian Association in London will take the matter up vigorously at home with the Indian Tea Association and Ceylon Association in London.

The Chairman:—The resolution is seconded by Mr. R. N. W. Jodrell. You have heard the resolution. I will put it to the meeting.

The resolution was carried.

RUBBER.

Mr. H. J. Walmesley:—I have received a telegram from the Planting Member in the Cochin Legislative Council which reads as follows:—

"Reduction Rubber Estates assessment continues in force for 1108. Re-survey collections postponed to 1109."

The Cochin Government gave us a reduction in assessment for last year which has just come to an end, and they have now allowed it for another year. They also carried out a compulsory survey two years ago, which we have got to pay for, and one instalment was due this year. They have also postponed the collection of that. I think that this affects the Nelliampathies also. I should just like to express our appreciation of the manner in which the Cochin Government have treated us in our present situation.

The Chairman:—The Secretary will write to the Cochin Government expressing our appreciation and, I think we should ask Mr. James to point this out to the Madras Government, and ask them to be as sympathetic as the Cochin Government has been in this matter, and to re-consider the question of the reduction of or postponing the collection of cess on rubber lands in their territory.

Mr. R. N. W. Jodrell:—I am instructed by the South Travancore Association to ask this Association whether they can see their

way to do something further for the Scientific Officer as he is leaving. I have received this letter since I have arrived here. I have had no chance of replying to the South Travancore Association as their delegate. I know what the Executive Committee have decided and my personal view is that he has been treated very fairly. But under orders from the South Travancore Association, I must bring it up at this meeting and ask whether anything further can be done for Mr. Taylor?

Mr. H. J. Walmesley:—Mr. Chairman, on this point we have already come to a decision and that decision was agreed to by the South Travancore Association, but now they have changed their minds. May I suggest that this matter might be referred back to the Rubber Advisory Committee for further opinion.

The Chairman:—Does that meet with your approval?

The meeting agreed to the suggestion.

BUDGET, 1932-33.

The Chairman:—We will now go back to the Budget which, it was proposed, should come up for discussion this afternoon. As you will remember there was a resolution moved yesterday by the Central Travancore Association. The resolution which was moved by Mr. W. A. J. Milner and seconded by Mr. R. N. W. Jodrell reads as follows:—

“That the U.P.A.S.I. general Cess devoted to the Labour Department grant, being $6\frac{1}{2}$ annas per acre for Tea, $3\frac{1}{4}$ annas per acre for Coffee and $1\frac{1}{2}$ annas per acre on Minor Products, be remitted in 1932-33, and that an equivalent amount of Rs. 58,902 be taken from General Reserve.”

The amendment that was proposed by Mr. J. S. B. Wallace and seconded by Mr. R. N. W. Jodrell was:—

“That the Tea Scientific Cess be remitted for the year and that the necessary expenditure be charged against Tea Reserve.”

This is the resolution and the amendment which was postponed until to-day and I should like to hear what anybody has to say about them.

Mr. W. A. J. Milner:—Mr. Wallace is still willing to put up his amendment. We have fully considered the matter and we think that we should withdraw the resolution.

Mr. J. S. B. Wallace:—I think we have already decided to increase our expenditure with regard to the depreciation on the buildings from $2\frac{1}{2}$ to 5 per cent. If this amendment is carried, it means a withdrawal of about Rs. 32,000 from the Reserve. That, I think, is quite sufficient to draw this year.

The Chairman:—You want your amendment to come up?

Mr. R. N. W. Jodrell:—There was a resolution on depreciation that it should be increased to 5 per cent. per annum.

The Chairman:—Yes, it was carried. The Central Travancore Association wish to withdraw their original resolution. Have I your permission to allow them to do so?

The resolution was, by leave, withdrawn.

The Chairman:—The amendment moved by Mr. J. S. B. Wallace and seconded by Mr. R. N. W. Jodrell now becomes the resolution before the meeting. As nobody else wishes to speak for or against, I will put the resolution to the meeting.

The amendment was carried.

The Chairman:—Well, gentlemen, that finishes all the special business of the meeting.

ELECTION OF THE AUDITORS.

The Chairman:—I propose from the Chair:—

"That the present Auditors, Messrs. Fraser and Ross, be elected as Auditors for the current year on the same remuneration as heretofore."

The resolution was carried.

BUDGET, 1932-33.

The Chairman:—I would now ask you to vote for the election of the Chairman. While the ballot papers are being handed round the room, there is one little thing that has got to be done as a result of the alterations made in the Budget. It is purely a formal resolution. I propose from the Chair:—

"That the General Committee be requested to amend the Budget for 1932-1933 in accordance with the resolutions passed at this General Meeting."

You must have noticed that you passed resolutions giving people money liberally, and as the General Committee passed the original Budget this resolution must now be passed.

The resolution was carried.

ELECTION OF CHAIRMAN.

The Chairman:—Well, gentlemen, the result of the voting is—I have much pleasure in informing you—that Mr. R. Fowke has been elected unanimously as Chairman for the ensuing year. (Loud Applause).

Mr. R. Fowke:—Mr. Chairman and Gentlemen, I thank you for the very great honour you have done me. These are very difficult times that we are going through, and the U.P.A.S.I., as you

know, is at the present moment in a state of re-organization, or about to be in a state of re-organization. I say that for these reasons, you should have elected a Chairman more competent than myself. But I may say that I will do my very utmost to justify your selection. (Loud Applause).

Mr. J. S. B. Wallace:—Before we close the meeting, I would like to propose a very hearty vote of thanks to Mr. C. R. T. Congreve for all the work he has done for the U.P.A.S.I. Mr. Congreve has done more for us than anybody else during the time he has been a member of the U.P.A.S.I. He told us yesterday that he was shortly going Home on furlough for a period of four months, and we all wish him a very happy voyage and a safe return. (Loud Applause).

Mr. C. R. T. Congreve:—I should like to thank you Mr. Wallace for all the kind words you have said about me and you, gentlemen, for the way in which you have received them.

I now declare the meeting closed.

SCIENTIFIC DEPARTMENT
REPORTS
1931-1932.

TEA SCIENTIFIC DEPARTMENT.

Administration Report for 1931-1932.

Staff:—At a meeting of the Executive Committee during March 1932 the appointment of two Indian Scientific Officers was sanctioned. Mr. Ananda Rao, M.Sc., has been appointed as an Entomologist and Mr. Subba Rao, B.Sc., has been appointed as a Mycologist. It is anticipated that these officers will spend six months at this Experimental Station in acquiring a general knowledge of tea, and a detailed knowledge of the information at present available on the subjects lying within their especial provinces. Subsequently it is hoped to send Mr. Ananda Rao to Central Travancore to make a special study of *Helopeltis* with particular reference to the possibility of biologic control.

Mr. Subba Rao will probably make a special study of *Corticium* on a group of estates sufficiently near this Experimental Station for him to make use of this laboratory. Facilities for carrying out cultural work and the microscopical investigation of material which are essential for successful and satisfactory mycological research will be available here. At the same time, as far as possible the Entomologist and Mycologist will endeavour to make preliminary observations on the many other problems awaiting their attention.

In February 1932 the Typist was replaced.

Mr. K. B. W. Jones resumed his duties as Assistant Tea Scientific Officer in November 1931 after Home Leave.

Correspondence:—There was a slight decrease in the amount of correspondence compared with the previous year, but on the whole the enquiries received from planters were confined less to pests and diseases of minor importance, and dealt with problems of greater significance.

Labour:—There has been no difficulty with labour during the year and it is probable that the present labour force will remain permanently.

MATURE TEA PLOT.

(a) **Yield:**—The yield from the old tea for the whole year averaged 342 lbs. per acre. This yield is low as a result of 27 out of the 54 Sub-plots having been pruned during the year. Moreover the plots pruned included the majority of the best yielding Sub-plots.

The monthly yields were as follows:—

MONTH.			Green Leaf.		Made Tea per acre.	
			During Month.	Total.	During Month.	Total.
April	1931	...	263	—	22	—
May	"	...	243	506	20	42
June	"	...	426	932	35	78
July	"	...	455	1387	38	116
August	"	...	264	1651	22	138
September	"	...	342	1993	29	166
October	"	...	283	2276	24	191
November	"	...	417	2693	35	224
December	"	...	311	3004	25	250
January	1932	...	321	3325	27	277
February	"	...	337	3662	28	305
March	"	...	437	4099	36	342

(b) **Monthly Pruning Experiments:**—A new cycle of pruning was started in the Sub-plots 1A to 12A in a repetition of the cycle concluded in the previous year. One plot is pruned in each month. The results of this repetition can only be discussed after the cycle is again completed.

(c) **Pruning:**—Sections A and B were pruned during the year with the exception of the Sub-plots 1A to 12A which come under the monthly pruning experiment. Sub-plots 13A to 23A were pruned in May 1931. As they had previously been pruned in September 1928 they were therefore two and a half years from pruning. Sub-plots 13A to 23A, 3B, 10B and 11B were pruned in August 1931, having been last pruned in September 1928. The remaining Sub-plots 4B and 9B were last pruned in 1926, but were skiffed in 1928, 1929 and 1930. These Sub-plots were also pruned in August 1931. The type of pruning done was the same in each case, 4" to 6" of wood being left and only a minimum of removal of branches was carried out except where there was serious canker or knots. The area pruned in May was out of plucking for 11 weeks and that pruned at the end of August for 13 weeks.

With reference to the time occupied in recovery from pruning it should be pointed out that whereas during June and July only very light monsoon conditions were prevalent, during August and September the rainfall was unusually heavy. A second feature that was noted was that the yield obtained from Sub-plots in Section B during January, February and March was proportionally greater from those plots which had previously been skiffed than from those which had not.

(d) **Variation in Sub-plot Yields:**—The yield of each of the 54 Sub-plots comprising the mature tea has been recorded for a little over three full years. It is now possible to state the comparative fertility of each plot with some degree of confidence. Expressing

the annual yield of a plot as a percentage of the average yields of all comparable plots, for each of the 3 years, it is found that the fluctuation in the three years is rarely greater than $7\frac{1}{2}$ per cent from the mean value. By eliminating some of the more inconsistent plots it is hoped to be able to start certain experiments, dependent on yield for the measurements of results, during the coming year.

YOUNG TEA.

1926 Plots—This plot was again supplied up in June, the number of supplies being as follows:—

Sub-plot 1	Rangamatti	..	..	45
" 2	Nakhati	..	..	52
" 3	Mittenguri	..	..	92
" 4	Rajghur	..	..	274
" 5	Dhoolia Manipuri	..	..	452
" 6	" "	..	..	577

In Sub-plots 4, 5 and 6 the number of supplies required was greater than in the previous year. This is attributed in part to the failure of plants to recover from pruning.

As the year has been very favourable for the growth of supplies it appears at present as if the number of supplies during the coming year will be reduced to less than 500 for the whole area. In past years it has been found that during the worst dry months the plants became weakened and died out completely during the hot months of March and April. This year a larger number of the supplies are still looking healthy and are expected to survive at least until the next hot weather. If reasonably good conditions are experienced meanwhile, it is highly probable that these young plants will become fully established.

Grass still presents a serious problem on this plot. By growing green manures thickly a cover has been provided under which the grass is not growing with its normal vigour. In many patches however the green manures themselves did not grow successfully. It is proposed to try the effect of Indigofera and other cover crops.

The whole plot was plucked lightly throughout the year. The yields given below indicate the great variability of the plots.

Sub-plot.	Jat.	Area.	Yield green leaf.	Yield made tea per acre.
1	Rangamatti ..	.34	234	172
2	Nakhati ..	.34	345	254
3	Mittenguri ..	.34	231	170
4	Rajghur ..	.27	102	95
5	Dhoolia Manipuri.	.55	135	61
6	" "	1.16	277	60
Total ..		3.00	1324	110

It may be added that 40 per cent of the total yield from the 1926 plot was obtained during the dry months, January, February and March which are normally very poor cropping months. It is hoped that during the coming year these yields will be very greatly increased.

1927 Plots:—294 supplies were put out in June and these seem to be well established. It is hoped that no further supplying will be necessary in this area. In May supplies which were ready for a 2nd cut were so treated. From July onwards this plot was brought into fairly regular plucking and a yield equivalent to 190 lbs. made tea per acre was obtained.

1928 Plots:—Sub-plots 15 to 18 comprising the main portion of the 1928 clearing required 6 per cent supplies which were accordingly planted out in June. Sub-plots 19 to 32 required less than 4 per cent of supplies. In the contour portion 1020 supplies were planted but a number of these were used for interplanting along the lower edges of drains.

All Sub-plots except Nos. 19 and 21 were pruned in May at a height of 6 inches and were brought into light plucking in December. Sub-plots Nos. 19 and 21 were those which had previously been pruned high. These high pruned plots were in bearing throughout the whole year but plucking was very light and intermittent until November. These Sub-plots gave a yield equivalent to 158 lbs. and 208 lbs. made tea per acre respectively while the comparable low pruned Sub-plots Nos. 20 and 22 only yielded 48½ lbs. per acre and 67 lbs. per acre respectively.

It is contended in some quarters that under suitable conditions after a high prune such as Sub-plots 19 and 21 have received, i.e., at 12" in the centre of the bush and at 18" round the outside, shoots are produced from lower down on the main stem, and that owing to the presence of these new shoots it is possible to come down to a lower level at subsequent pruning. A classification of the bushes in these two plots has been made which is of interest in this connection.

The bushes were divided into classes as follows:—

Class 1:—Single stemmed bushes with no branches below a height of 9 inches.

Class 2:—Single stemmed bushes with one or more shoots which appear to have arisen since the bush was last pruned.

Class 3:—Bushes which branched freely independently of the pruning.

Class 4:—Supplies which were stumped at 2 inches before planting and have now adequate frames.

Class 5:—Recent young supplies.

The following results were obtained:—

Sub-plot.	Jat.	Cl. I.	Cl. II.	Cl. III.	Cl. IV.	Cl. V.	Vacancies.	Total.
19	Betjan ..	102	75	155	23	26	3	384
21	Dhonjan ..	30	62	250	47	18	1	408

Bushes belonging to Class II were also subdivided according to the number of branches produced.

Sub-plot.	No. of new side branches below nine inches.			
	1	2	3	4 or more.
19	26	23	16	10
21	37	17	7	1

It would appear, therefore, that the possibilities of ultimately producing a satisfactory low frame on the bushes is not yet evident. It should also be pointed out that the bushes have not been manured in any way. The soil appears to be reasonably good.

1929 Plot:—This was cut back to 2 inches in May and as subsequent growth was good it was possible to bring the area into light plucking in December. Up to the end of March a yield of 110 lbs. of green leaf had been obtained. The plot was supplied up in June.

1930 Plot:—This was supplied up and the growth and development of all plants is very satisfactory. The number of vacancies to be supplied up during the coming monsoon is between four and five per cent.

UNPLANTED AREA.

Planting of Swamps and Waste Ground:—More red gums were planted out in the swamps and below the contour planted area. A double row of Grevilleas was planted near the western edge of the 1930 plot. Plans have been made to plant up all remaining areas during the next year. This is very desirable both for tidiness and for the sake of ensuring a fuel supply in years to come. The growth of Grevilleas has been good but a number of deaths have occurred among the red gums, particularly on the slopes rising out of the swamp. Apparently healthy and vigorous plants suddenly wilt and die in two or three days. In every case the plant is found to be

eaten off below the ground by white ants. Up to the present no other causative agent has been found and as a result the opinion has been formed that the white ant itself is responsible for the damage. It is thought to be unlikely that white ants would eat through the root within a few hours of the death of the plant, as consistently as they do, if the plant died of a fungoid infection. If white ants were not the primary cause of the trouble it should be possible to pull up a dying bush before white ants removed the affected tissue. This however has never yet been accomplished. In the absence of any definite evidence it must be assumed that living gums may be attacked below the ground in spite of the usually accepted theory that white ants do not destroy living tissue. This is supported by the fact that damage is almost entirely confined to dry ground, whereas in the swamps where the conditions are less favourable for white ants and more favourable to the development of the fungi there have been no casualties of this nature.

Tung Oils.—Two more small patches of *Aleurites Fordii* and *Aleurites Montana* have been planted. The plants appear to be very hardy but the growth obtained is poor. *Aleurites Fordii* planted in 1928 did not reach a height of more than twelve to fifteen inches until quite recently. They did not shed their leaves during the dry weather period November 1928 to April 1929 but did so to a considerable extent in December 1929. After rains in February, however, fresh leaves have been produced and the plants once more look thoroughly healthy.

It is suggested that since the closely allied species *Aleurites Triloba* grows very much more satisfactorily in this climate that it might be sound policy to try budding *Aleurites Fordii* on to *Aleurites Triloba* in the hope of obtaining the quality of oil from *Aleurites Fordii* with the cropping capacity of *Aleurites Triloba*.

There appears to be a difference in speed of growth between plants derived from seed from different sources. It is possible that this is due to acclimatisation.

LABORATORY WORK.

During the year considerable progress has been made in the investigations of problems in tea chemistry, as a result of which more comprehensive ideas of the variations in green leaf, and the changes during manufacture, have been reached.

Theotannin.—Continuing work begun last year it has now been established that throughout the year there is a definite relationship between the percentage of theotannin in the leaf and the percentage dry matter. This is independent of whether the bushes are young or old, or in tipping or in flush. This relationship may be expressed by the following equation:—

$$\text{Percentage Theotannin} = 0.382 (\text{Percentage Dry Weight} - 8).$$

Over a period of nine months during which data was collected it was found that the error incurred by calculating the percentage theotannin from the percentage dry weight was never greater than five per cent of the amount of theotannin actually found by analysis

in spite of the fact that no correction was made for surface moisture on the wettest of leaf. Surface moisture must be a definite source of error in this calculation and by correcting for it better results might have been obtained.

A relationship such as this has not previously been demonstrated and its significance may be far reaching, not only because of its bearing on the physiological aspect of theotannin, but because it provides a clue to the seasonal variation in the nature of the made tea ultimately produced. It has been possible to outline a guide to determine the exact degree of wither required by any sample of leaf in order that the condition of the leaf after withering, as regards its theotannin content, shall be a standard. The determination of the dry weight of the green leaf is a very simple matter requiring no technical skill and very little trouble. Consequently the discovery of the relationship may be considered as a definite step towards the scientific control of tea manufacture.

Attention has been drawn in previous Annual Reports of this Department and in the publication 'The Tannin Principles of Tea' to the possibility of there being a definite relationship between the total iodimetric value of an infusion of green leaf, and the iodimetric value after the precipitation by gelatine of the theotannin. The possibility has been explored and shown to be a fact. There is such a relationship but it has now been shown that this is subject to variation according to the source of the infusion. For instance there is a gradual change in the relationship in a series of infusions made from the bud, first leaf, second leaf, stem, and root. Also with infusions derived from two leaves and a bud there is a variation according to the time of day at which the leaf is plucked. This is significant from the physiological point of view and also in the application of scientific control to manufacture. The simplest explanation of the phenomenon would be based on a variation in carbohydrate distribution in the parts of the plant and during the daily cycle of metabolism and catabolism. This explanation is not thought satisfactory as it would necessitate the presence of reducing sugars in the leaf to an extent which cannot be practically demonstrated. It is considered that in the leaf of the tea plant it is highly probable that theotannin plays a part which in other plants is played by carbohydrates, and it is enabled to do so by virtue of the variability of the aliphatic side chain attached to the phenolic nucleus. This would explain the variations in the relationship between the iodimetric 'totals value' and the iodimetric 'precipitation value.'

It is of interest to note that a little work in N. E. India is now being done on the ratio of total oxidisable matter to tannin. The results so far reported agree reasonably well with those obtained here when due allowance is made for the lesser sensitivity of the Loewenthal method used.

In the Annual Report for 1930-31 reference was made to work being done on the analysis of made tea. This work has been considerably extended and noteworthy results have been obtained. It has been shown that the relationship between the total oxidisable value and the theotannin value for made tea infusions is approxi-

mately constant, but is different to that for green leaf infusions. By correlation of the results obtained from iodimetric analyses with those obtained by the formalin method, explanations can be given for the small variations observed in the above relationship. Small differences between Ceylon, Java and South Indian teas are observable and can be intelligibly interpreted.

This work was followed by a series of analyses of tea at varying stages during manufacture, at intervals during withering, during rolling, fermentation and firing. As a result of these investigations a new hypothesis is put forward to explain the chemical changes occurring during withering. The degree of oxygenation which has taken place at any time during the period of fermentation can be estimated with certainty. New ideas have been formulated to explain the changes observed during this process, and the use of such vague terms as 'phlobaphenes' and 'tannin reds' and 'tannin browns' has been to some extent superseded by the development of a more informative terminology.

After five years of research on theotannin it is felt that the time is rapidly approaching when sufficient information will have been derived from laboratory operations to justify extending the sphere of work to cover experiments in factories. To have done so previously would have been premature, as in the absence of a sound knowledge of the material operated on, of the effects which it is desired to produce, and of the necessary technique capable of following the changes by which these effects are brought about, constructive research could only have been substituted by blind experimentation.

So far as theotannin is concerned the necessary preliminary work appears to be in sight of completion. A full account of the work done on this subject, and numerous new suggestion and hypotheses concerning it, has been prepared in a form suitable for publication, under the title 'Theotannin: A Contribution to the Chemistry of Tea,' and is now in the hands of the printers.

Pectin:—Work done on the creaming down product of tea caused attention to be directed towards the significances of a group of substances which in the past have been grouped under the heading of Pectic bodies and dismissed as being of little importance.

The pectins are a group of substances of complex structure which are chiefly characterised by their property of forming jellies. Very little is known of their constitution but they are fairly readily prepared in an impure form from suitable material.

The possible importance of pectins in teas was first noted in conjunction with the fact that Caffeine Oxy-theotannate, which is the chief constituent of the creaming down product, is soluble in water in the presence of pectin to a far greater extent than in pure water.

Pectin has been prepared from green leaf by the addition of a large excess of alcohol to a thick aqueous infusion of green leaf, by which it is precipitated in a very impure state. Purification is effected by repeated re-solution in water and re-precipitation.

Analyses have been made of the ash, and of the calcium pectate which is the recognised derivative used in the quantitative determination of pectins. Results from these different precipitations were as follows:—

	SAMPLES.		
	1	2	3
Percentage ash ..	20.3 %	20.3 %	21.0 %
Percentage Potassium Carbonate in ash.		49.0 %	54.5 %
„ Calcium Carbonate „		17.8 %	19.2 %
„ Magnesium „		27.0 %	19.2 %
„ Calcium in Calcium pectate.	11.41 %	11.49 %	11.65 %
„ Calcium pectate equivalent of original pectin.	64.0 %	63.2 %	63.0 %

These results illustrate one especially notable point. The potassium content of the ash is very high, which may indicate that the formation of pectins is dependent on the amount of potash available for the bush.

The possible roll of pectins in manufacture is worthy of attention. Pectins are associated with the ripening of fruit and they are also very susceptible to enzyme action which causes de-esterification. There is accordingly a certain amount of justification for assuming that the production of a 'nose' during the withering of leaf may be due to the pectins present. If this is so it would be expected that a change in the pectin would occur during manufacture. That such a change takes place has been verified. Precipitation of a made tea infusion by the addition of alcohol gives unsatisfactory results unless a few drops of hydrochloric acid are added. The precipitate which can then be isolated is a pectin but it appears to differ in many ways from the green leaf pectin. Conclusive figures have not yet been obtained but it appears probable that the amount of potash in the pectin from made tea is very much reduced. Further work on the subject is under consideration.

At present it is considered very probable that pectin has a large influence on the quality of tea but this has not yet been proved and will require prolonged research before any definite proof or disproof can be brought forward.

If the connection between pectins and quality can ultimately be established it should become possible to rob 'quality' of much of its elusiveness and mystery.

Manganese.—It has long been known that tea contains an abnormally large amount of manganese. Preliminary experiments have been made with the idea of finding whether it is of any significance in manufacture and whether it could be employed as a clue by which to detect adulteration. Wide variations have been

found in the amount of manganese present in tea but it appears to be a less variable relationship between the amount of manganese in the extract and the total amount of manganese present in the original black tea. This has also been found to be the case with green leaf infusions and green leaf, but to a lesser extent, and more data is necessary before any conclusion on this subject can be reached.

From the theoretical point of view the presence of manganese is most suggestive since it is known to have an important influence on enzyme action and in fact, to be a fundamental component of a certain type of enzyme. The presence of enzymes of the peroxidase type in tea appears to have been proved and Perrin claimed that peroxidases could be formed by the interaction of a manganese compound with a hydrophilic colloid. The formation of such a peroxidase during withering can be readily explained if Perrin's idea is correct.

Adulteration of tea:—As a result of the correspondence arising from a prosecution under the act for the prevention of Adulteration of Tea a certain amount of work was done to determine how far the rules laid down by the Act were satisfactory from the point of view of South Indian Planters. As a result the conclusion was reached that the rules are unsatisfactory and inadequate and an attempt was made to point out ways in which these rules could be altered and improved. A memorandum was prepared which was ultimately published in the "Planters' Chronicle."

Soil Chemistry:—A number of soils have been examined and their acidity determined. These investigations were done in conjunction with advisory work on manuring or the prevalence of diseases.

Some of the work done on the seasonal variation in the acidity of soils and the effect of Sulphur, which was reported on in the Annual Reports for 1929-30 and 1930-31, has been repeated, confirmed and extended at Tocklai.

PUBLICATIONS.

Adulteration of Tea:—An article on this subject appeared in the "Planters' Chronicle" in December 1931.

Theotannin: A Contribution to the Chemistry of Tea:—The work done up to date in this Department on the tannin in tea, theotannin, has been written up for publication and is now in the hands of the printers. An account of the *raison d'être* of this publication may be of use.

It was decided at a Meeting in Coimbatore in December that research work should for a time be reduced in favour of more touring. It was therefore advisable to prepare a permanent record of the research work done up to date, and of the hypotheses and theories to which the work had given a foundation. Most of the work done has been concerned chiefly with theotannin and a stage has been reached when publication is likely to be of practical value.

The book about to be published contains the substance of the earlier publication 'The Tannin Principles of Tea, Part I' which has been revised and very much enlarged, and it also contains what corresponds to the proposed Part II of the former work. The main work of the publication is of a technical nature and therefore of little immediate interest to the average planter, but there are certain sections which it is hoped will be found both interesting and useful to all planters who have in the past attempted to follow the scientific explanations of tea culture and tea manufacture. The Section on the Seasonal Variation in the Theotannin Content of Green leaf in Part I, and a large proportion of Part II, should be of interest to the practical planter. Particular attention is directed to a Section entitled 'Theotannin as a Basis for Controlled Withering'. It is hoped that this will prove to be a first step towards the solution of the problem of the degree of wither to be aimed at. No golden rule is propounded but suggestions are made which should be fruitful if they can be satisfactorily modified to suit the conditions of individual estates. Summaries of Part I and Part II are included which should give lay readers an indication of which portions of the book are of special interest to them.

Although much of the publication may not be of immediate value to the practical planter by reason of its technicality, it is nevertheless of considerable importance. 'The Tannin Principles of Tea' Part I was also technical, but appears already to have had an effect on the Scientific work of other Experimental Stations. In that booklet there were two main subjects, an improved method of preparation of theotannin, and the quantitative estimation of theotannin. Since its publication the Chemists of the Indian Tea Association have succeeded in preparing sufficient theotannin to enable them to experiment on the effect of theotannin on the human system. Moreover the criticism made of certain methods of analysis has apparently resulted in renewed investigation of these methods and correlations are now being obtained which would not otherwise have been possible. As the present book covers a much wider field and gives more detailed information, it is hoped that this will prove of greater help to other investigations.

PESTS AND DISEASES.

The only item of note regarding pests during the year is the fact that a beetle, of a type not previously reported as attacking tea, was found ringing the stems of plants in a nursery. This beetle has been identified as *Sthenias grisator* and has been noted to ring the stem of various garden plants, grape vines, mulberries, *Erythrina*, etc. It is occasionally serious as a pest in gardens but other than collecting and destroying the adult beetle no method of control has been proved to be satisfactory. In the case reported the amount of damage done was not great.

This beetle is about three-quarters of an inch long, is a uniform dark grey in colour, and has relatively long antennæ.

On the estate a disease of tea has been found which apparently has not previously been observed in either Ceylon, South India or

North East India. This is caused by a fungus of the *Helicobasidium* type.

The external signs of this disease are the formation of a thick velvety brown pad around the collar and lower stems of the plant. Reddish brown threads of the mycelium run down the root. The plant dies very slowly.

Boedzin and Steinmann in the *Archief Voor de Thee Culture* February 1930, No. 1, write on the subject of control as follows:—

'Since the fungus has been found to spread by means of spores and a quick growing mycelium, and can penetrate the roots of host plants, killing tea and Tephrosia, and causing serious damage to coffee, it is strongly advisable to take measures against its attack.

'Heavily infected plants should be up-rooted—but one should always bear in mind that the threads of mycelium live in the soil and on the roots, so that the latter must be thoroughly removed. It may also be useful to allow infected areas to lie fallow for some time. Where the bushes are attacked but still alive, the fungus should be brushed off and afterwards treated with carbolineum. After such treatment the spread of the fungus seems to have been definitely checked on the estate.'

The use of the alkaline wash instead of carbolineum might be equally efficient and less expensive.

MANURING.

In view of the present economic situation the question of revision of manuring programmes has become important.

Speaking in general terms it may be stated that manuring is profitable as long as the price realised per pound of made tea exceeds the original total cost per pound of all items which vary in proportion to the crop obtained, by an amount greater than the cost of manuring per unit increase in crop.

Items which vary in proportion to the crop obtained include plucking, leaf transport, manufacture (other than factory over-head charges such as the Teamaker's salary, factory insurance, upkeep of structure, etc.), transport of the tea to the market and so on, and in some cases a proportion of weeding costs if these are increased as a result of the application of manure. The cost of manure per unit increase in crop is calculated by dividing the cost of manuring per acre by the increase in crop per acre.

Alternatively manuring may be discontinued if the price obtained per lb. is greater than the total costs of items varying according to the crop, by an amount less than the saving per unit decrease in crop. This latter quantity is derived by dividing the saving per acre by the decrease in crop per acre.

Neither of these calculations takes into account the residual effect of rational manuring or the later effects of discontinuation of manuring. Since the residual effect of rational manuring is

good this adds to the desirability of continuing to apply manure, where, as a result of manuring, yields are still increasing. Where rational manuring has increased the yield to the maximum obtainable for a given expenditure it is possible that the drop in crop as a result of cessation of manuring will not immediately be proportional to the saving in manure, since the improved health of the bushes will prevent their yielding capacity falling back immediately to the premanuring level.

In some quarters an attempt at economising has been made by eliminating the use of all but nitrogenous fertilisers. By this means a considerable reduction in expenditure is achieved but there is little or no evidence generally available to show that an adequate return is obtained for the money so spent. It should be remembered that tea is one of the few crops depending upon the removal of leaf from a perennial plant. Most manuring experiments on single fertilisers have been carried out on annuals or on fruit trees, and the results obtained are not necessarily applicable to tea manuring. It is essential in considering the manuring of tea to realise that cropping is continuous and constitutes a perpetual drain on the vigour of the bush. Nitrogenous fertilisers which stimulate leaf production will ultimately debilitate a bush unless supported by phosphate and potash. A satisfactory analogy is that of a motor car. The supply of petrol appears to be the most necessary item to ensure speed, but the greater the speed the greater the necessity for lubricating oil. If the supply of phosphate and potash in the soil is adequate then up to a certain point the application of nitrogen alone is not harmful. Unfortunately it is rare to find convincing evidence that phosphate and potash are present in quantities which will prove adequate to meet the increased drain on them incurred by the addition to the soil of purely nitrogenous fertilisers. In some soils the supply of phosphates and potash is ample and in such soils it is usually found that the supply of nitrogen is also good. In such cases it should not be necessary to apply artificial fertilisers at all, and cultivation should be all that is required.

The probable results of manuring with nitrogenous fertilisers alone are firstly, leaf diseases; secondly, stem diseases; and finally, root diseases. These may not become apparent for a year or two but once established they may take years to eradicate. Stem diseases attributed to *Corticium* are the most likely to be felt first and root diseases of the *Diplodia* type are likely to occur later.

Phosphates, and potash may be omitted or reduced if soil analyses warrant this. It is worth while finding out whether one or other or both of these are present to a sufficient extent as great savings can therefore be made. Care should be taken however to ensure that the results of soil analyses are not invalidated by errors in sampling. A sample taken from the surface soil where a coolie has inadvertently dropped a handful of manure three months previously would probably give a wonderfully encouraging, but quite untrustworthy analysis.

Economies may be made by reducing or altogether eliminating the use of expensive organic fertilisers. The unit cost of the nitrogen in these is about a hundred per cent greater than in

Sulphate of Ammonia. It is very doubtful whether the value of organic nitrogen is double that of Sulphate of Ammonia unless the latter is applied in wasteful quantities. Steamed Bone Meal becomes especially valuable under present circumstances because it not only supplies phosphoric acid at a competitive unit cost but also a small quantity of organic nitrogen at a nominal price.

A study of unit costs is of particular importance, and it should also be remembered that the cost of many fertilisers varies according to the source of supply. Care should therefore be taken to find out the cheapest source of supply rather than to accept a single estimate.

Compound fertilisers such as Ammophos or Niciphos will probably prove cheaper than a mixture of Sulphate of Ammonia and Superphosphates where transport charges are high.

The application of concentrated nitrogenous fertilisers, even when supported by other fertilisers should not be excessive in amount. Their action is rapid and diminishes rapidly after a time. It is therefore not expedient to apply more than can be utilised by the tea in the period over which it remains available. If an excessive amount is supplied it is likely that there will be a waste by leaching before the plant can utilise it all. No exact figure can be quoted to show what the limiting amount should be as this depends largely on local conditions and as the vigour of the tea, the nature of the soil and the lie of the land.

The time of application and method of application warrants especial attention when only concentrated fertilisers are employed. Increased crop is most valuable when the increase is brought about during the normally light cropping months, and is least valuable during naturally occurring rush periods.

In South India the deficiency in soil moisture is one of the chief limiting factors causing poor cropping during the dry months. To increase crop in spite of this can only be done by bringing the feeding rootlets of the plant deeper into the soil, and by limiting evaporation from the surface. By applying manure at the time of deep cultivation between the end of the heavy rains and the beginning of the dry weather, and by keeping the surface soil to a depth of 3 inches loose and broken up during the dry weather, both of the above desiderata can be attained to some extent. Concentrated fertilisers so applied will not be used up too quickly by the bushes, nor are they likely to be washed out of the soil; an increased crop will be obtained during the dry weather at the time when the tea produced is most valuable; and some results from the manure may be expected to be felt until well on into the South West Monsoon.

TOURING.

Two tours were carried out during the year, both in March. The Tea Scientific Officer visited the Wynad and Coorg and the Assistant Tea Scientific Officer visited Central Travancore and Mundakayam.

METEOROLOGICAL.

The year ending March 31st, 1931, was in many ways abnormal as a result of the unusual distribution of rainfall. The South West Monsoon was very light until August. Up to the end of July, on only 5 days did more than an inch of rain fall in a day, and these were consecutive days from June 29th to July 3rd. In August over 34 inches fell. Other months were approximately normal but useful rain was experienced in both December and February. March brought less rain than usual.

Temperature and humidity were naturally affected by the distribution of the rainfall. Thus the average daily maximum temperatures in December, January and February were all three or four degrees less than the average for the past five years, and this materially assisted in reducing the effect of the dry weather on both young and old tea.

The total rainfall for the year was two and a half inches more than the average for the past five years.

Month.	Rainfall.	Days with rain.	Average daily Temperatures.		Humidity %		Vap. Pres.		Cloud.
			Mini-mum.	Maxi-mum.	8-30 a.m.	3 p.m.	8-30 a.m.	3 p.m.	
April 1931..	0.96	8	66.5	85.3	85.5	60.8	25.3	22.1	4.7
May	5.39	12	66.9	82.7	83.8	67.1	22.7	24.0	4.0
June	8.49	27	66.3	74.2	90.1	86.7	21.9	24.0	8.2
July	14.67	29	65.4	72.6	88.3	86.2	20.5	22.4	7.7
August	34.42	31	65.4	71.1	92.5	91.7	21.3	22.4	9.0
September	6.00	24	64.0	75.0	87.0	76.6	20.2	21.5	5.5
October	6.58	18	64.0	76.3	86.0	80.9	20.7	22.2	4.5
November	3.05	9	63.5	75.2	91.7	70.0	20.3	19.6	5.0
December	2.60	8	61.7	73.2	89.9	74.3	18.2	20.0	4.4
January 1932..	0.00	0	56.8	75.1	81.9	39.9	14.6	11.1	0.9
February	0.90	2	59.2	80.0	88.3	49.4	18.0	16.7	2.5
March	0.25	1	61.7	84.6	78.1	43.0	18.9	16.8	2.1
Total..	83.31	169							

K. B. W. JONES,
Acting Tea Scientific Officer.

COFFEE SCIENTIFIC DEPARTMENT.

Administration Report for 1931-1932.

I have the honour to present the administration report of the Coffee Scientific Officer for the year ending 31st March 1932, dealing with the work in progress in connection with coffee problems.

As in previous years, the work has been centered at the Mysore Government Coffee Experiment Station, Balehonnur, under the direction of Dr. L. C. Coleman. Work in co-operation with the officers at the Station has been continued in connection with breeding, spraying and miscellaneous problems.

In November 1931, it was decided to employ an Indian assistant to work on the problems of Mealy Bug and Cockchafer in South Coorg. Mr. V. K. Subrahmanyam, B.Sc. was appointed to the post at the commencement of December and after six weeks training in the Entomological Section of the Mysore Department of Agriculture, Bangalore, took up his duties in South Coorg, with headquarters at the former Coffee Experimental Station at Siddapur.

The report comprises, as usual, a short account of touring work, scientific investigations in progress and general notes on coffee problems which have been raised during the year.

Touring.—Two periods of absence from headquarters have been occupied with visits to other districts. A period of one month in July 1931 was spent in South Coorg in connection with Mealy Bug and Cockchafer the work of which will be considered under that heading later in the report.

In January 1932, a further period of one week was spent in South Coorg in order to lay down lines of work for the Entomological Assistant. Following this, a short visit was paid to the Nilgiri-Wynaad to investigate an obscure root disease reported from an estate in that district. A report embodying the results of the investigation was prepared and despatched to the estate in question. The points of general interest in connection with this root disease will be considered in the section dealing with root diseases.

INVESTIGATIONS.

Leaf Disease—Progress Report.—Considerable time has been occupied during the year with investigations directed to increase the available information on the life history, mode of infection and distribution of Leaf Disease (*Hemileia vastatrix* Berk. and Br.) and of the phenomena of resistance shown by various individual plants and strains. In some directions, progress has been satisfactory; in others, certain preliminary difficulties have not yet been completely overcome. The work falls into four parts—spore germination, infection, spore distribution and phenomena of resistance and susceptibility. In addition,

evidence from field observations undertaken for studies of spraying and fruit loss has helped to shed further light on the problems of the rise and fall of attacks.

1. Spore Germination.—The germination of the Leaf Disease fungus spore is the first step in the development of a Leaf Disease spot and it is also the period during which the fungus is most vulnerable to direct measures of control. It will, therefore, be clear that an understanding of the process and the factors which influence it is of very considerable importance in increasing our control over the disease.

Most of the time up to date has been occupied with elaborating suitable technical methods of studying germination under various conditions. Increasingly more satisfactory results have been obtained, but even yet they leave much to be desired. Until the methods are sufficiently accurate to provide similar results in experiments carried out under similar conditions, it is not possible to study the effect of varying the conditions and so far this requirement has not been realized. The following figures illustrate the difficulty. These (Table I) are the percentage germinations found in 12 drops of distilled water containing spores which had been preserved in tubes for four days. The drops were distributed on four glass slides, each enclosed in a small closed dish. The conditions in each dish were considered to be identical as to humidity and temperature and all the glassware had been cleaned and sterilized in the same way. The spores were all collected from the same infected leaf from spots of approximately the same age by allowing the ripe spores to drop on a sheet of white paper.

TABLE I.
*Percentage germination of Hemileia Spores
preserved for four days.—*

Slide.	Percentage germination.	Slide.	Percentage germination.
Slide 1.	22.5 per cent	Slide 3.	18.3 per cent.
	22.5 "		21.5 "
	17.0 "		25.8 "
Slide 2.	34.8 "	Slide 4.	44.0 "
	48.3 "		33.5 "
	37.3 "		42.0 "

It will be seen that the degree of variation is very high, ranging from 17.0 per cent to 48.3 per cent. It is to be noted that drops on the same slide show fairly close correspondence except in the case of slide 2, and that the slides 1 and 3 correspond fairly well as also do slides 2 and 4. This suggests that there is some factor of variation between slides or the dishes enclosing them which has upsetting results, and so far this factor has eluded detection.

In spite of these difficulties, information of a fairly definite character has been obtained on two points in connection with the germination of *Hemileia* spores. These two points have a direct bearing on field problems.

The first point concerns moisture conditions for germination. It has been found that germination does not occur in the absence of liquid water, but that actual submersion in water has a depressing effect on the development of germ tubes. The most favourable conditions are provided when dry spores are dusted on to drops of water. This has an interesting bearing on the view expressed in the reports on the Seasonal Periodicity of Coffee Leaf Disease (Mysore Coffee Experimental Station Bulletins 4 and 6, 1930 and 1931) that the rate of increase of the disease is retarded under heavy rainfall conditions. Under such conditions, spores would soon be waterlogged and therefore in an unfavourable condition for germination and this, together with the washing effect of heavy and continuous precipitation would account for the behaviour already deduced from field observations.

The second point concerns the effect of light. It has been found that light has an inhibitory action on germination. The figures for two experiments given in Table II illustrate this point.

Experiment 1 was carried out with drops of water inoculated with spores on leaf surfaces from which the drops were afterwards removed to slides and counts made. Experiment 2 was carried out on glass slides. Similar results were obtained in other experiments. In these experiments, dry spores were dusted on to drops of distilled water.

TABLE II.
Effect of light on the Germination of Hemileia
Spores.—

Experiment.	Percentage germination.	No. of drops examined.
1. Light (N. window)	0.0 per cent	4
" "	0.0 "	4
Darkness	16.3 " (mean)	6
" "	14.5 " "	4
2. Light (N. window)	2.0 " "	3
" "	1.2 " "	3
Darkness	49.2 " "	3
" "	38.1 " "	3

This effect of light is at variance with most of the previously recorded work on the germination of rust spores but is in agreement with some results recently recorded by Dillon Weston for the spores of Black Stem Rust of wheat.

The problem requires much further investigation and work is planned to study the bearing of this laboratory discovery on the behaviour under natural conditions.

It at once focusses attention on night times as the period of spore germination. It does not seem to have much bearing on the question of shade, however. All the experiments so far done have been under light conditions from a N. window, but some evidence from inoculation experiments suggests that diffuse light has not the same inhibitory effect.

The possibility of conditions favourable for infection being best realized at night and the results of experiments on the moisture requirements for germination served to indicate the highly favourable conditions presented by heavy morning dew. This commences in darkness and provides more efficiently than any shower of rain, a covering of innumerable fine drops of water over both surfaces of the leaf.

Judging by general observations in the field, the amount of heavy mists and dew occurring during the rainless months determines, to a great degree, the severity of the annual Leaf Disease attacks.

A large number of experiments undertaken to study the effect of short periods of storage of spores on their ability to germinate gave doubtful results for the reasons already described. There is some suggestion that a short period of storage of spores, sufficiently mature to fall from leaves kept in still air, results in better germination than is given by spores placed directly on water drops after detachment from the leaf.

Attempts to estimate the length of time which spores would retain their ability to germinate were commenced but beyond the fact that two collections kept in sealed tubes at laboratory temperatures and medium humidity gave no germination after six weeks, no reliable results have been obtained as to the limits.

2. Infection of Coffee Leaves by *Hemileia vastatrix*.—

References in earlier reports to experiments on artificial inoculations of Leaf Disease were all records of failure, but during 1931, successful results were obtained and a technique of inoculation worked out. It is now possible to obtain inoculations on detached coffee leaves and to retain such leaves healthy for periods up to two months, giving ample time for the complete cycle from spore to spore to be completed and to allow studies on the type of infection and amount of spore production to be made.

The failure of the early experiments must be attributed to ignorance of the part played by light in inhibiting germination of spores and to insufficient control of the acidity of the water used for the inoculation drops.

The results so far obtained are of considerable interest but there remains a wide range of doubtful points which require clearing up.

Considerable variation in the time required for the development of visible spots at the places of inoculation and for the commencement of spore production was found in various experiments. Even separate inoculations on the same leaf showed differences of several days in these respects. The judgment of these times, particularly those of the first appearance of pale spots, is very difficult as the number of successful penetrations per unit area influences visibility. Taking the results as a whole, it appears that from 7 to 12 days elapse between infection and the first appearance of a yellow spot and from 15 to 24 days between infection and the first appearance of spores. These figures refer to Coorg variety leaves infected with spores taken from Coorg leaves and the experiments were conducted under laboratory conditions of temperature under glass jars. Inoculation on susceptible Robusta leaves gave much longer periods for the development of a visible spot and of spores, a matter of some interest with respect to the future status of *Hemileia* as a disease of Robusta.

TABLE III.
Leaf Disease Infection Times.

Date	Leaves	Origin of Spores	First appearance of	
			Yellow spot	Spores
8-10-31	Coorg	Coorg	12 days	15 days
28-10-31	"	"	8 "	16 "
6-11-31	"	"	9 "	17 "
14-12-31	"	"	9 "	17 "
12- 1-32	"	"	7 "	24 "
12- 1-32	"	"	7 "	22 "
12- 1-32	"	Robusta	7 "	24 "
12- 1-32	Robusta	"	20 "	29 "
12- 1-32	"	Coorg	20 "	35 "

Of the factors which may affect the times required for the appearance of infection and of spore production, the following will require consideration—temperature, age of leaf, humidity of the air during development and the density of infection. It must be noted that the later infections in Table III were carried out on more

mature leaves than the earlier ones owing to the cessation of vegetative growth and the difficulty of obtaining more tender leaves.

It is considered that the first appearance of pale spots is an unreliable index of the rate of development, as it depends very greatly on the person examining the leaf. The first date of spore formation is a much more well defined point in the life history.

3. Resistance and Susceptibility.—The development of a method of obtaining infections in the laboratory opened up a wide field of work in investigating the behaviour of the numerous selections, hybrids and crosses which are available at the Experiment Station. Work along these lines was started in September and the results have been of great interest and importance in relation to the breeding and selection work.

The first experiments were carried out on a number of plants which had been previously selected for their vigour and disease resistance as suitable starting points in the development of improved strains. The first experiment included leaves from four highly resistant plants which showed no disease in the field, two moderately resistant plants with some disease and one common Coorg type. Four leaves from each tree were inoculated and kept in the laboratory and the reaction of the plants recorded. The spores used came from Coorg trees.

Two striking results were obtained. The leaves from the four highly resistant plants showed this character in the experiment, but there was ample evidence that their resistance did not depend on any inability of the fungus to penetrate, because in the areas inoculated minute pale yellow spots developed, similar in appearance to the initial yellow spots which appear on ordinary susceptible plants. These yellow spots did not develop any further and although the leaves were kept under observation for 32 days, no spore production took place. Within that period, the Coorg leaves had developed disease spots and produced spores. Similar results were obtained in a second experiment carried out for confirmation. The study of the internal changes associated with the development of these abortive infections is to be taken up.

The second point arose from the results obtained with one of the two moderately susceptible trees. This set of leaves inoculated in the same way as the rest behaved like the completely resistant sets, although in the field the tree from which they came showed some development of ordinary spore producing disease spots. An experiment was at once started to study the result in more detail. Leaves from this tree—S. 5-30 in the Station records—were inoculated on one side of the midrib with spores collected from a Coorg tree, such as had been used in the previous experiment described and on the other side with spores from S. 5-30. A control series was started at the same time using leaves from a Coorg trees inoculated in the same way.

The Coorg leaves showed the development of typical disease spots on both sides of the midrib, i.e., both collections of spores were equally capable of infecting the leaves. On the S. 5-30 leaves, however, only the side inoculated with spores collected from S. 5-30 leaves showed the development of spore producing disease spots. The side inoculated with spores collected from a Coorg tree failed to produce more than pale spots which never developed into spore-producing pustules. These results have been repeatedly confirmed for the selection S. 5-30. Similar results were obtained with a set of leaves from a Kent tree which was resistant to spores collected from a Coorg tree and susceptible to spores from infections found on the Kent. A further experiment in which leaves from this Kent tree were inoculated with spores collected from S. 5-30 and with spores from the Coorg revealed that the Kent behaved in the same way as S. 5-30 in its reaction to the different spore collections.

It is considered that these experiments establish the existence of two strains of *Hemileia vastatrix* which behave differently on certain strains of *Coffea arabica*.

There is a strong suggestion that this resistance to one strain is common among Kent's selection. S. 5-30, on which this behaviour was first found, is grown from seed of a plant in Woger estate which is related to Kent. Further, the results afford a basis for the explanation of features in the field behaviour of Kents which have previously been inexplicable. An account of this work in relation to the behaviour of Kents has been prepared and will be published in the "Planters' Chronicle."

Much further work is required on this problem to investigate what proportion of Kent plants possesses this partial resistance and how it is inherited. There is also the possibility of still other strains of the disease, though no certain evidence has as yet been obtained of such. The leaf disease on the susceptible Robusta plants so far examined has not been detectable as a separate strain.

One experiment using spores from *Hemileia* infections on *Gardenia gummifera* and *Vangueria* (?) sp. failed to give infection on Coorg leaves.

Further work along these lines is planned for the future. The method of inoculation on detached leaves is to be used for studies on the resistance of the various crosses and self fertilized lines now being developed on the Station. The method will facilitate the elimination of types of high susceptibility to disease in the nursery with much saving of time and space in the field, and at the same time will throw light on the mode in which resistance of Leaf Disease is inherited.

Spore Distribution.—In order to study certain peculiarities of the development of Leaf Disease in areas exposed to and sheltered

from wind, a number of glass slides smeared with vaseline were exposed as spore traps on posts erected in two areas of coffee near the Station towards the end of the South West monsoon. The slides were arranged so that equal numbers were exposed to each of the four cardinal points of the compass in each area. They were left exposed for one week and then collected and stored in clean slide boxes for microscopic examination. During the period, the wind was consistently in the West or South West as is usual during the monsoon, where it is not changed by configuration of the land.

One area faced west and was exposed to the full force of the wind. The coffee was about five years old and the shade, light. The other area was sheltered from the wind with a gentle eastern slope. The coffee in this area was older and higher, and the shade thicker than in the first area. The status of the disease was markedly more severe in the latter area than in the former. In both places, the slide-bearing posts were about the same height, so that they were well above the coffee in the first area and slightly above it in the second.

It is admitted that the two areas were very dissimilar in ways other than facing and wind exposure, and that direct comparisons between the number of spores caught are not possible. However, the counts actually made are of interest in connection with the movement of spores in the air. It is unfortunate that the number of slides examined is small, but the work of examination is extremely slow and occupies a great deal of time. The results are given in Table IV.

TABLE IV.
Leaf Disease Spores caught in Spore Traps.

Position of slides	Spores Caught			Average
	Slide 1	Slide 2	Slide 3	
W. (Exposed facing)	23	17	21	20.3
S. (" ")	36*	6	4	15.3
N. (" ")	5	13†	5	7.7
E. (" ")	7	3	10	6.7
W. (Sheltered facing)	3	4	..	3.5
S. (" ")	14	12	..	13.0
N. (" ")	17	11	..	14.0
E. (" ")	11	16	..	13.5

NOTE.—* 12 groups of spores. † 3 groups of spores.

The markedly greater number of spores caught on the slides facing West in the series exposed in the windswept area affords interesting proof that the spores move with the wind. In the sheltered areas, there is no such definite movement, and all directions of

exposure show a generally similar "catch" of spores except the slides facing West. The low numbers on the western facing in this area are very difficult to explain, unless it be that under the lee of the slope, there is a back eddy of wind from the East. This is not supported by the evidence of the slides facing East.

As has already been stated, the status of the disease was markedly higher in the sheltered area, though the spore-catches were barely as high as in the slides exposed to the west wind. This suggests that in sheltered situations the horizontal movement of spores is much less marked than in windswept areas. Unfortunately, no data are as yet available with regard to downward movement.

The tentative conclusions drawn from the field observations of 1930 on the influence of wind exposure are supported by these spore trap observations (Seasonal Periodicity of Coffee Leaf Disease. Second Report. Bull. No. 6. Mysore Government Coffee Experimental Station). In that report, it was suggested that the later development of Leaf Disease on windswept areas was due to the greater wastage of spores. The considerable horizontal movement of spores with the wind in the windswept areas would tend to carry spores rapidly through the air, resulting in wide diffusion of the spores and large losses of spores which would be carried into areas where coffee was absent—jungle, etc.

The possibility of using wind breaks on ridges to act as spore traps is one that, I think, might merit consideration, especially in areas where coffee is growing on two sides of N.—S. ridges.

General Observations on Leaf Disease.—The foregoing sections deal with specific work on Coffee Leaf Disease. In addition, various detached observations made in connection with other work serve to throw light on various aspects of the Leaf Disease problem. Cataloguing such detached notes would serve no purpose at present. Later, it is hoped to summarize all the available data, both observational and experimental, bearing on the development of the disease through the year and the effect of environmental conditions thereon.

Root Diseases.—Work on root diseases has been largely in abeyance. The wood block cultures of *Fomes lamaensis* have been kept going and evidence of complete penetration obtained. Thin pieces of wood permeated by the fungus have been found to show the brittleness which is characteristic of the disease in the field. Microscopic examination of the wood failed to reveal any marked structural alterations and chemical tests for lignin revealed no apparent reduction in this constituent. Further work along these lines to investigate how the fungus brings about decay are planned but have been held up by other work of a more important nature.

Wood blocks heavily infected with pure cultures of the fungus were buried in contact with roots of young coffee trees growing in

tubs. So far, no signs of attack have been visible though the experiment has been in progress for six months.

Of other root diseases, *Rosellinia* remains secondary to Brown Root Disease, while two other types have come under notice during the year. The first of these has been found occasionally in patches in Mysore and in general characters resembles *Poria hypolateritia*, the Red Root Disease of tea, but it does not seem to be very common. The second is of some importance in the coffee near Gudalur. The characters are rather indefinite and no certain identification has been possible. Cultural work resulted in the isolation of a fungus which in its growth characters showed resemblances to *Fomes applanatus*, a fungus reported by Petch (Diseases of the Tea Bush) as occasionally causing root disease of tea in Ceylon. The same author mentions that it has been reported as a root disease of coffee in South India, but without reference to the authority. As the characters of the disease on the dead tree from which this isolation was made differed somewhat from those of other trees dug out, it is probable that other fungi are also involved.

The majority of the attacked trees showed very little external signs of disease, but on splitting the tap root the wood was discoloured and smelt "mushroomy." In the oldest stages, the wood was spongy and wet. The progress of the disease appeared to be slow as it was only occasionally that a patch of the disease was clearly noticeable. Close inspection revealed in many cases that where a single tree had died suddenly, there were indications of previous deaths in the presence of supplies several years old. In practically every case, a dead stump was present nearby and in one case the spread of disease along a large root of a dead stump to the dying coffee tree was established by careful excavation. In this case, the stump root showed a progressive decay from the dead stump outwards to a point where it was in direct contact with the tap root of the coffee.

Recommendations were made along the usual lines. There does not seem much prospect of any marked advance in the treatment of root diseases until the conditions under which dead stumps and felled logs decay in tropical soils are subjected to comprehensive investigation. An understanding of the succession of organisms involved in the process together with the place in that succession taken by the few more important organisms involved in root diseases of the crops might provide data which would suggest means of directing that succession along lines unfavourable to the development of root disease fungi, or means of otherwise controlling decay.

Spraying Mixtures—Progress Report.—In the Administration Report for 1930-31, a series of observations made on plots receiving different types of spray mixtures was reported. These were designed to provide an estimate of the effect of the different mixtures in preventing leaf fall resulting from Leaf Disease. Observations of identical type were carried out at approximately the same time during the year under review. The results, together with those of 1930, are given in Table V.

TABLE V.

*Effect of Different Sprays on Amount of Leaf held
by Typical Branch Systems.*

Mixture used.	1930		1931	
	Order	Leaf count	Order	Leaf count
Linseed Oil Bordeaux 10 ozs.	1	6.35 ± .21	1	6.28 ± .23
" " " 40 ozs.	2	6.28 ± .25	7	5.77 ± .23
" " " 20 ozs.	3	6.09 ± .19	2	6.23 ± .25
Casein Bordeaux ..	4	5.90 ± .18	3	6.19 ± .24
Fish Oil Resin Soap Burgundy ..	5	5.57 ± .23	8	5.66 ± .26
Resin Soda Bordeaux ..	6	5.50 ± .16	6	5.94 ± .20
Alum Bordeaux ..	7	5.38 ± .24	4	6.00 ± .28
Resin Soda Burgundy ..	8	4.87 ± .18	5	5.97 ± .21
Solbar 3 per cent ..	9	3.10 ± .11	9	5.12 ± .19
Check No. spray ..	10	2.40 ± .13	10	3.31 ± .17
Bordeaux without adhesive ..	No observation		..	5.40 ± .19

Taking the data as a whole, there is a general reduction in differences between the different treatments during the present year together with an improvement in the results of the check counts and the treatments which gave poorer results in 1930. This was to be expected as the weather conditions were considered less favourable for the disease during the very wet monsoon of 1931. Conversely, the results afford an interesting confirmation of the depressing effect of heavy rainfall on Leaf Disease which was concluded from previous observations recorded in the bulletins on "Seasonal Periodicity of Coffee Leaf Disease."

Considering the individual spray mixtures, Linseed Bordeaux in the 10 oz. strength continues to head the list, while Linseed Bordeaux, 20 oz., Casein Bordeaux and Resin Bordeaux hold approximately the same positions as in 1930. Solbar shows again as the least effective. Experiments with this material have been abandoned. Alum Bordeaux and Resin Soda Burgundy show marked improvement in effectiveness, while for some unexplained reason Linseed Bordeaux 40 oz. exhibits a marked drop.

Further data will be required for providing results of definite statistical significance, but it seems probable that either Linseed Oil at the 10 oz. strength or Casein is likely to prove the best adhesives. The problem of the relative merits of Bordeaux and Burgundy mixtures must await further results, but the data obtained suggest that there is no advantage in the latter from the point of view of fungicidal power.

With regard to the use or disuse of adhesives, the results of 1931 suggest that there is a positive advantage to be gained by their use.

the differences between the figures obtained with Casein and without being statistically significant. At the same time, the advantage to be gained by spraying without an adhesive as compared with no spray at all is considerable. It remains to be seen from crop yields whether the increment gained covers the cost of the adhesive. In view of the quite high figures for spraying without adhesive and of the fact that the monsoon of 1931 was an extremely heavy one, it seems that the omission of the adhesive in September–October spraying would not seriously affect efficiency of protection.

Time of Spraying and Strength of Spray—Progress Report.

Similar observations to those described in the previous section were carried out in September and in February on a series of large plots receiving spray applications at various times and in different strengths. The results are given in Table VI.

TABLE VI.

Effects of Spraying at Different Times and in different Strengths on Leaf held by Typical Branch Systems.

Treatment.	Leaf Counts		Crop in lb.
	September 1931	February 1932	Cherry per 500 trees
1% May and September ..	6.55 ± .22	4.29 ± .17	1,425 lb.
0.5% „ „ ..	6.17 ± .19	2.45 ± .12	2,059 „
1% May only ..	6.39 ± .21	2.22 ± .14	1,013 „
0.5% „ „ ..	6.82 ± .20	1.67 ± .16	809 „
1% September only ..	3.31 ± .21	2.38 ± .17	800 „
0.5% „ „ ..	3.34 ± .19	2.34 ± .15	852 „
Checks I ..	2.38 ± .19	0.95 ± .11	1,829 „
„ II ..	2.94 ± .19	1.48 ± .13	1,026 „
„ III ..	3.47 ± .23	1.70 ± .14	667 „

Unfortunately, the soil and shade conditions vary considerably through the area so that the results are somewhat difficult to interpret. The plots are arranged as follows: One per cent, May and September spray, one per cent May spray only, 0.5 per cent May and September spray, 0.5 per cent May spray only, one per cent September spray only and 0.5 per cent September spray only, with check plots between the treatments. Figures are only given for three check plots near the centre of the whole series. The check plots were under treatment during 1930 and the effects of the treatments were still evident in 1931 so that the data are of limited value for this year. The high yields given by Checks I and II in the table are the results of the 1930 treatments to which they were subject.

It can be seen from the September observations that there is no significant difference between the one per cent (5-5-50) application and the 0.5 per cent (2¼-2¼-50) application. As might be suspected also, the September application, done only a few days before the observation was made, exerted no effect and the results do not differ significantly from Checks II and III. The poorer figures for Check I may probably be attributed to the very considerably heavier crop it was bearing as a result of the previous treatment.

The result of the February observations are more difficult to interpret as matters are greatly complicated by difference in crop yield. Thus, it might be concluded from the significant difference in leaf amount in the two twice sprayed plots as indicated by the observational data that 0.5 per cent mixture was less efficient than one per cent. A reference to the crop yield figures shows that the 0.5 per cent twice sprayed area produced nearly 50 per cent more crop than the one per cent twice sprayed area and the greater leaf loss may be due to the heavier strain on the trees and not to any fungicidal deficiency of the mixture. In the case of the area sprayed only in September, there is no apparent difference in the effectiveness of the two strengths. In the case of the areas sprayed in May only, the 0.5 per cent strength does not seem to have been so effective as the one per cent strength and in this case no explanation based on crop differences is possible. It must be remembered that the heaviest intensity of the disease occurs usually in October and November and it is possible that the 0.5 per cent mixture applied only in May loses its efficiency by the washing of rain sufficient to result in a reduction in leaf amount below that of the trees sprayed with the one per cent mixture at the same time. More definite information on this point must await on further data.

The general course of the results is in agreement with earlier conclusions based on studies of the seasonal behaviour of Leaf Disease. Of the two sprays, the premonsoon application is to be regarded as the most important, while the post-monsoon application is secondary to it. It is possible, in wind-swept areas where the wide dissemination of spores retards the development of attacks, that a post-monsoon application alone might be of value, but the risks of failure are considerable.

The figures for crop yield in the areas receiving only one application do not reveal very clearly the greater role played by the pre-monsoon spray. A general inspection prior to the 1932 blossom revealed, however, that the pre-monsoon sprayed areas had formed very considerably more bud than the post-monsoon sprayed areas, so that although the crops from all four of the single sprayed plots were similar, there is every likelihood of a difference being visible in the next crop in favour of the pre-monsoon sprayed areas.

Work along these lines will be continued in the coming year both in September-October and February-March. The results which accumulate from year to year are being filed and taken with

climatic data will afford in time a valuable body of material for advice on spraying questions.

Note on Tables V and VI.—The method of obtaining the figures given in the two tables was explained in the Annual Report for 1930-31, and in an article in the "Planters' Chronicle" of July 4, 1931, pp. 315-7. The fraction prefixed by the \pm sign following each figure representing the estimate of the number of leaves per growing shoot is an estimate of the Standard Error which is used in arriving at significant differences.

FLOWER AND FRUIT STUDIES.

Pollen Germination.—Some further work on pollen germination was carried out during the year, but no further results of general interest have been obtained. This year's results seem to suggest a relationship between pollen viability and the atmospheric humidity at the time of flowering, but the results are a little conflicting. In view of the importance of this problem from the point of view of breeding work, it is hoped to arrange for the watering of trees in future seasons with the pollen problem in view, instead of using trees watered primarily for breeding purposes.

Floral Studies.—It was noted in the last report that a number of hybrid plants in the selection plots at the Experiment Station formed no pollen. Investigations made on immature buds showed that the condition of male sterility could be detected readily in January. The condition is associated with malformed anthers, the malformations varying from the absence of pollen sacs in normal shaped anthers to the complete replacement of anthers by petaloid structures. All degrees between these extremes could be found in different plants. The results were placed at the disposal of the Plant Breeding Assistant at the Experiment Station and, in co-operation with him, a large number of Station selections were examined.

Crop Losses during Development.—An announcement was made in the Annual Report of 1930-31 of a series of observations undertaken to investigate the times at which developing fruit are lost. These observations were carried to a conclusion in December 1931 and a new similar series started in March 1932. A synopsis of the results is given in Table VII. It will be understood that one year's results are quite insufficient to draw any conclusions but in view of the results of the small scale observations of 1930, several points may be commented upon.

As in the observations of 1930, the major portion of the loss occurs in April, May and June. The subsequent losses are negligible and largely attributable to mechanical causes, though a reservation must be made with respect to "Jeloo," a subject which will be considered below.

TABLE VII.
Crop Losses during Development.

Times of loss.	No.	Percentage of original bud.
Original flower bud 1-4-1931 ..	9031	....
Loss 1.—between April 1st and May 5th.	1850	20.5 per cent
Loss 2.—Unswollen fruit distinguished on May 12th.	989	11.0 „
Loss 3.—between May 12th and June 16th.	2414	26.7 „
Loss 4.— „ June 16th and November 12th.	381	4.2 „
Fruit picked on November 12th ..	3397	37.6 „
Total ..	9031	100.0 per cent.

The four sets of losses indicated in the table are clearly separable and form well defined groups, the causes of which remain uncertain.

Loss 1.—This loss is indicated as occurring between the blossoming on April 1st and May 5th, but, in fact more than half of it occurs in the first week after flowering. The affected young fruit initials turned yellow, dried up and fell from the fruiting nodes. In some cases, failure at this point involved whole groups of flowers, and may have been due to defective buds which failed to open normally. In great measure, this loss is probably to be considered as a failure to fertilize.

Loss 2.—This loss did not involve a fall of young fruit, and it is not possible to say when the conditions giving rise to it originated. It is noted as occurring on May 12th because at this date it was possible to distinguish that a certain proportion of the young fruit was lagging behind in development. These fruit never developed to maturity, remaining only slightly larger than the original pistils present at the base of the flower at blossom time. They disappeared gradually during the course of the year, though a few were still to be found even at harvest. The reason for this failure of development is unknown and will have to be sought by other methods.

Loss 3.—This constitutes the largest single loss in development. Attention was drawn to it in the report of 1930-31, where in a small series of observations, about 11 per cent of the original blossom was affected.

It occurred very suddenly between the 2nd and 16th June in the year under review. The characters of the majority of the fruit falling at this time were the same as those described on page 13 of the annual report of 1930-31. Five hundred fallen fruits found at this

period were examined and classified. It was found that 77 per cent showed the characters described blackening of the bean tissue before the decay of the pulp and a development of white powdery material at the point at which the fruit broke away. Of the remainder, 10 per cent showed the development of the white powdery material at the base of the fruit or fruit stalk but without any decay of the bean tissue, while the rest 13 per cent were characterized by the splitting of the pulp tissue at the base of the fruit without any other signs of decay. The first two types were all slightly smaller than the healthy fruit at the time of the fall but the last type consisted of fruit as large or larger than the healthy ones.

Attempts to isolate an organism from the fallen fruit were all failures. Microscopic examination failed to reveal any signs of infection in either the dark decaying bean tissue or the white powdery material at the base of the fruit or fruit stalk. This white powdery material was composed of cells which had become separated from one another by the dissolution of the material binding the cells of the tissue together.

All the indications point to physiological causes as the reasons for this fall. These causes will require fuller investigation in the future with special reference to the variation from year to year and the effect of varying environmental conditions on the amount affected. It is hoped that closer examination of the data may throw more light on the problem, but the work of examination has not been completed.

Loss 4.—This small loss is mainly due to mechanical causes and to the dying back of one or two of the branches under observation. It must be remembered that the branches upon which these observations were made, were all sprayed twice, before and after the monsoon so that losses due to Leaf Disease and Black Rot were practically eliminated.

Taking the figures as a whole, it can be seen that 37.6 per cent of the original bud reached the stage of maturity in this series of observations.

The records were kept for each of the 96 branches which survived out of the original 100, four being lost by mechanical injury. From the data so recorded, two interesting points emerge.—

1. The branches with the largest number of buds gave lower percentage sets than those with a smaller number.

2. Branches with few leaves at blossom time were liable to large losses in the early stages of development while many leaved branches suffered but small losses. The correlation was by no means complete as some other branches with low numbers of leaves suffered small losses. No branches with large leaf numbers gave heavy early losses.

Examination of the Crop Picked.—The 3397 fruits picked were all cut open and the condition of the beans recorded. A synopsis of the results is given in Table VIII.

TABLE VIII
Analysis of Fruit Picked in Crop Development
Observations.

	Fruit	Percent- age.	Beans	Percent- age.
Total	3397	....	6376	....
Total Peaberry	451	13.3	451	7.1
Total three beans per cherry ..	33	1.0	99	1.6
Total Empty beans ..	119	3.5	129	2.0
Total Black bean ..	478	14.1	757	11.9

This analysis provided several points of interest in connection with two defects of the final crop. These two are light or empty beans and black bean, both of which would be classed in practice as light or jeloo. It seems that the two are quite distinct.

The type described in the Table as empty beans are beans which contain no endosperm, i.e., the "meat" of the bean is absent, but are completely developed in size and have a normal parchment skin. The most striking feature of this defect is the rarity with which it affects a whole fruit. It can be seen from the Table that, while 119 fruits contained such light beans, there were in all only 129 such beans, and as most of the affected fruit were normal ones it is obvious that the number in which both beans were affected was extremely small. No explanation of this peculiarity can be given at present but this phenomenon may also be due to some irregularity in the complex process of fertilization.

The second type of defect is "black bean," a trouble which has come into considerable prominence during the last year. The defect consists of the replacement of the bean tissue by a dark-brown to black pulpy material which shrivels and dries in the later stages. One or both beans may be affected in a fruit. There are no definite external signs by which the trouble can be diagnosed, though some such fruits bear a few minute pale yellow spots on the surface of the outer skin. These spots however appear to be no more than superficial. In the present analysis, some beans are included among the black beans which are not completely decayed in the manner described, but showed decay or spotting only on a portion of the bean. Intermediate cases suggest that they all probably belong to the same group, but this statement may require some modification in the future. If there is a distinct class of abnormalities among the fruits classed as black bean, it makes up but a very small portion of the total.

The common feature is the absence of any external signs of decay on the fruit coupled with a partial or complete decay of one or both beans. The parchment skin is usually quite normal. The percentage of affected fruit in the collection was 14.1 per cent, a much lower figure than that reported from a large number of estates in various parts of South India during the year.

Black Bean—Progress Report.—As has been mentioned in preceding section, black bean was a serious and widely distributed defect of the crop of 1931. The first reports were received at the end of August and from that time onwards evidence was obtained of its presence in greater or less degree throughout the coffee districts of South India except the Shevaroyas. It was reported from one or two estates in Mysore in 1930, but it was serious on only one and appeared then to be related to a severe attack of Leaf Disease.

A description of the trouble has already been given in connection with the crop loss observations. This description applies generally to all the specimens examined but there are one or two points which require fuller elucidation. At the Experiment Station and on estates in the vicinity, affected fruit did not fall from the tree although the presence of the trouble was established at the end of August. In the report from the Annamalais received in early September, however, mention was made of a heavy fall of fruit and specimens received of such fallen fruit revealed a high percentage of black bean. Where fruits did not fall, they failed to ripen and in many cases the presence of large amounts of the defective fruit was not realized until the time of stripping. In the few cases noted in 1930, the affected fruit appeared to ripen normally and bad vat outturns were obtained from the beginning of crop.

On obtaining the first reports in August 1931, an inspection was made of fruit samples collected in the area where the fruit loss observations were being carried out. Some 200 fruit were cut open and examined and the number of affected fruit recorded. The percentage worked out at about 12 per cent. An inspection of the figures obtained in November from the final crop of the branches under observation shows only an increase of about 2 per cent and this is as likely to be due to the errors of sampling as to any real difference in amount. As the periodic observations show no loss during the intervening period, it seems evident that the affection does not increase with time after September. As yet, there are no data available for earlier periods, so that we do not yet know at what time the condition is first initiated.

In order to see whether the condition could be attributed to Leaf Disease and Die Back, a number of fruit were collected in September from branches which had lost all their leaves from Leaf Disease and were showing signs of Die Back. The amount of black bean was, if anything, rather lower than in fruits taken from healthy branches. It does not seem that Leaf Disease and Die Back have anything to do with the amount of black bean and this is borne out by its presence in quite as large amount on estates where these diseases are serious as on those where they are not.

Observations were then extended to the manuring plots and samples of fruit were collected from areas receiving Nitrogen alone (N), Phosphoric Acid alone (P), Potash alone (K), a complete manure (N+P K) and no manure (Check). The samples were rather small and there are no data available to allow a decision to be made as to how far the differences recorded can be considered significant. However, the strikingly high figure for the samples taken in the plot receiving Nitrogen alone deserves closer investigation. The results are given in Table IX.

TABLE IX.

Manuring Treatment and Black Bean.

Treatment.	Percentage Black Bean.
No manure ..	5.4 per cent
N only ..	11.3
P only ..	4.9 "
K only ..	4.1 "
N P + K ..	6.3 "

A large series of cultures were attempted to investigate the possibility of the presence of some parasitic organism. These all gave negative results, the only growths obtained being common saprophytic bacteria and fungi which occurred irregularly in the cultures. Examination of the dark bean tissue and the brown juicy liquid pressed out of them failed to reveal any signs of an organism.

Further work is required to provide an explanation of the trouble. So far, the evidence obtained is mainly of a negative character. It is apparently not the result of other diseases and does not seem to be the consequence of parasitic invasion of any sort. It is obviously a disease of occasional occurrence. As far as it has been possible to trace, its last appearance in noticeable amount was in 1923. This suggests a connection with climatic conditions, but data are at present too meagre for any definite climatic causes to be assigned to the disease. It has been suggested that the heavy rain in August was responsible but in view of the presence of black bean in the 1930 crop in N. Mysore, this must remain doubtful, as 1930 was a year with an abnormally light monsoon rain. I am inclined to consider that the conditions leading up to black bean act earlier than the heavy monsoon rains. There is a suggestion in the data for the early crop losses recorded in the preceding section that there may be a relation between the early June loss and the amount of black bean, a heavy June loss being followed by a lesser amount of black bean and *vice versa*. This possibility has only recently come to light in the study of the data and it has not yet been possible to examine the question critically.

The data for the effect of manures on the incidence of black bean warrant further investigations of this question and it is hoped to take up this subject during the coming year. A study of fruit

samples taken at regular intervals will also be made to see at what time differentiation of sound and unsound fruit is possible.

At present, it seems that the disease is the result of physiological disturbances probably connected with the supply of nutritive material under certain climatic conditions.

Mealy Bug and Cockchafer.—Work on Mealy Bug and Cockchafer commenced with preliminary survey in July 1931, and has been continued by the Assistant Entomologist from February 1932. At this early stage in the investigation, there can be but little to report. It seems however that the problem is extremely complex and involves a great deal more than the presence of certain specific insects.

The outstanding feature of the problem is the high mortality of supplies between the ages of one and four years. With this mortality have been associated the two insect pests mentioned and the investigation is planned to find out what part these two insects play and in what way the high death rate can be prevented, or, at least, substantially reduced.

Mealy Bug (*Pseudococcus citri*, Riss)?—At the time of my visit in July, this pest was not serious and it was only towards the end of my visit that I was able to see any heavily infested plants. Judging by the time, these infested plants had been planted in the field and by the number and stage of development of the bugs, it seemed more than likely that the pest had been introduced with the plants from the nursery. This was supported by evidence given by a planter who stated that only in nurseries did this insect give him any trouble.

Later work has shown that Mealy Bug is ubiquitous in these areas and though the idea of nursery origin was a reasonable conclusion in the case noted in July, it does not serve to account for all the cases.

Description of the Bug.—The adult female bug is an oval purplish brown insect densely clothed with a white mealy secretion, the largest attaining a length of 6–7 mm. ($\frac{1}{4}$ in.). They are provided with legs but are not very active, once they have reached the adult stage. Reproduction is by means of eggs which are oval, pale yellow and about .3 mm. long. A single female may lay from 350 to 650 eggs in her lifetime. The eggs remain in clumps surrounded by meal behind the female, who moves a small distance forward to rid herself of the brood, and make room for fresh batches. The eggs hatch in 2–4 days and the young bugs become active 2 or 3 days after emergence and move about to find suitable feeding places. The complete life cycle is in the course of being investigated.

Habits.—The bugs show themselves to be extremely averse to light and this appears to be the reason for their subterranean existence. They can be "acclimatized" to the aerial portions of plants if these are kept in the dark. Occasionally old bugs are found some distance up the stems of *Erythrina* but smaller ones are never found

in this situation. It may be taken as certain that Mealy bugs found above soil belong to different species or at least different races and need no further consideration in the problem. The old bugs occasionally found above ground have ceased to lay eggs and are therefore of little further practical importance.

The bugs show rather more activity than is usual with members of this group, but the distances moved are, as a rule, not very great. The period of greatest activity is in the early stages, when the young are moving away from the egg masses to find suitable spots for feeding.

They are very widely distributed in the soil in the areas where investigations are proceeding. They occur free in the soil on weeds and especially on the roots of *Erythrina* and on the under sides of *Erythrina* loppings lying on the ground. They are not found in soils very deficient in organic matter or where there is an excess of water. In depth, they are to be found down to about a foot.

Nature of Damage.—Their ability to cause damage has been established experimentally. The bugs extract nourishment by sucking material from the cortical regions of the attacked roots. The injury seems at first to stimulate growth and this results in the bugs becoming partly enclosed in hollows surrounded by spongy cellular tissue. The presence of large numbers of bugs all sucking material and encouraging local attempts at callusing at points of injury constitutes a serious drain on the resource of the young plant. The points of injury also provide areas of weakness prone to act as points of entry for the penetration of various rotting organisms. At the same time, young plants with well developed root systems do not seem to suffer very seriously even when bugs are present.

Associated Organisms.—The bugs are attended by the cocktailed and the common red ant. The role they play in connection with the bug remains for further investigation.

A beetle as yet unidentified has been reared from larvæ found among the bugs, upon which the larvæ appear to feed. This insect will also receive further study.

Treatments.—Pot experiments to study the treatments which have been applied in estates and variously reported upon have been started but results are not yet available.

Cockchafer.—The investigations were started with a preliminary survey of the situation in July 1931. A number of pits were dug in various parts of an estate which had suffered very heavy losses of young plants and the number of Cockchafer grubs found was recorded. From 10 pits, 1 yard square and at least 2 feet deep, 44 grubs were recovered, an average of 4.4 per square yard. A further 40 plants were removed to study the condition of the root systems and an area of about 18 inches square and 1 to 1½ feet deep was excavated at the same time. Twenty grubs were found in these pits, but only three were in close association with the root systems and

one of these was dead. In the case of the ten larger pits, the grubs were in no way concentrated around the coffee roots.

Judging by the large numbers of grubs collected by the coolies engaged in cultivation, there was a high soil population of such grubs. At the same time, no direct evidence of their actually attacking the coffee was obtained. At the time it was considered probable that they were one cause of the great losses of young plants but by no means the only one.

A considerable number of sickly plants were then examined. The usual features were a bitten and gnawed appearance of the tap root, absence of lower laterals and a profuse development of young adventitious roots at the soil level. The lower part of the tap root was usually rotting, but no constant features were present to suggest a fungus disease. The level of the main damage was below the level in which the grubs were most plentiful in July, and it appeared as if the causes of damage must have acted earlier.

The results of this preliminary inspection were summarized as follows:—

1. The grubs were not actually attacking the coffee during July.
2. During July, the grubs are mainly in the top 6 inches of the soil which is above the level of the damage on the coffee plants.
3. There is no concentration of grubs around the coffee.
4. General conditions do not seem to favour supplies and the number of malformed root system is high.

Some observations were made on the characters of the grubs. They are of the typical Cockchafer type, being greyish white grubs usually bent in to a U shape, provided with stout walking legs, a strong brown head capsule and large biting mouth parts. They fall into three main size groups, the largest being about $1\frac{1}{2}$ inches in length. The size groups are not clear cut but the examination of the head capsules suggested that clearly marked stages could probably be distinguished with their help. No decision as to the number of species involved was arrived at.

Some grubs were put in boxes filled with soil and when these were protected from rain and the surface layers allowed to dry, it was found that the grubs descended to the bottom of the box. Like a number of other Cockchafer grubs their movements in the soil are probably determined by the soil moisture. Applications of Tobacco waste, such as have been in use as a repellent on the estates concerned, to boxes in which grubs were placed seemed to have no effect but the experiment was not very satisfactory. The excavating of a pit filled afterwards with cattle manure in the centre of a box in which a number of grubs were placed at random did not show any marked movement of grubs into the manure. Unfortunately the death rate of the grubs in the boxes was very high.

Work was commenced on the problem by the Assistant Entomologist in February 1932. The first problem was the situation of the grubs during the dry weather. It was considered that they were likely to be very deep in the soil, so the pits were excavated to a depth of 5-6 feet. Forty such pits were dug in 4 estates where the grubs were found in large numbers during the previous monsoon. They were made around sickly plants, in damp spots and around tree stumps and some pits were watered and left for several days. The total number of grubs found was 10, of which 8 were enclosed in mud cells. This result is extremely surprising, and more so, as some plants taken out had fresh injuries of the type attributed to the grubs and which obviously could not have been caused by them.

Attention was then turned to sickly plants and about 200 such plants were carefully dug up and examined. They showed in general poor root development, the production of adventitious roots at the collar and a high proportion of malformed tap roots.

The first adult Cockchafer beetles were seen on March 9th and from about the 15th the numbers seen began to increase. It remains unknown whether these beetles originated in the estates themselves or came in from outside areas. Two kinds of adult beetles were seen, one brown backed and the other grey backed, the latter being found over a shorter period than the former.

The principal food plants were determined as *Erythrina*, *Atti*, (*Ficus glomerata*) and *Albizia odoratissima*. Light traps were found ineffective in catching the beetles, but considerable numbers could be caught by hand in the evening. Further work to investigate the life history of these beetles is planned for the future.

At present, it is of course too early to draw any conclusions but the evidence so far collected leaves the part played by Cockchafer grubs extremely obscure.

The possibility of the damage to young plants being due to Nematode worms has been considered. Examination of a number of sickly plants revealed the presence of Nematode worms in the decaying cortical tissues, but that they play any primary part seemed unlikely. Further observations on this point will be made in the future.

Work will be continued at the Field Station at Sidapur where the Assistant Entomologist has been stationed.

GENERAL REMARKS.

The year 1931-32 commenced favourably with (on the whole) adequate and seasonable blossom showers. The monsoon was rather late in starting and after a mild beginning in June and July, developed into extremely heavy in August. Losses from Black Rot were severe in unsprayed areas where facing and situation favoured the disease. Leaf Disease was however somewhat checked by the constant heavy rain in August. The lighter rainfall conditions of the earlier part of the monsoon had favoured it, but the net effect was to reduce slightly the attacks of the disease in October. During the N. E. monsoon, coffee generally looked in extremely good condition, especially in sprayed areas.

Crops turned out badly, particularly in Mysore and certain parts of Coorg owing to the high percentage of black bean and to losses due to the rain in December.

The December rain was most unfortunate. Besides a great deal of ripe fruit fall, it gave a fresh impetus to Leaf Disease and at the same time, caused a great deal of new shoot formation at nodes which should have produced flower bud. In spite of this, the general condition of coffee in the early part of 1932 was good and only in a few small areas was there any rain before the end of March.

These remarks apply more particularly to Mysore but reports from other districts followed the same general lines.

Diseases—Leaf and Shoot Diseases.—In addition to Leaf Disease (*Hemileia vastatrix*) and Black Rot (*Corticium koleroga*), the only other disease of leaves or shoots which came into prominence during the year was Pink Disease (*Corticium salmonicolor*). It hardly reached formidable proportions anywhere but was considerably more noticeable than in previous years. The disease can be recognized by the wilting of branches and the blackening of the fruit at the joints of such branches. Close inspection reveals a very fine fungus web on the under side of affected branches and this extends over affected fruit. On the fruit and to some extent on the branches, the fungus forms little white clumps of threads which are visible to the naked eye. The fungus does not appear to extend on to the leaves but these droop and eventually fall as a result of the attack on the branches. It is a common disease affecting a wide variety of plants, including tea, rubber, citrus fruits, silver oak and numerous other forest and shade trees. It does not seem to constitute a serious pest of coffee. The presence of the disease in 1931, was no doubt, due to the abnormally wet conditions of the latter part of the monsoon. It is amenable to spraying and should not develop seriously on sprayed coffee. Affected branches should be cut out and burned.

One or two minor undetermined leaf spot diseases were reported during the year but they were not sufficiently serious to call for special control measures.

In nurseries, Collar Rot due to *Rhizoctonia solani* was occasionally reported. Recommendations for the control of this disease were made in the report of 1930-31.

Hemileia Vastatrix has been noted occasionally on certain Robusta plants and I am of the opinion that such susceptible plants should be removed and fresh supplies put in or stumped and grafted with a non-susceptible strain. So far, there seems no cause for alarm that Robusta will succumb to Leaf Disease in the same way as Arabica, and experience in Java strengthens this view. At the same time, the existence of physiological strains and the possibility of the development of a Robusta attacking strain makes it desirable that susceptible plants should be removed. In any case, these plants are usually unthrifty specimens and replacement would be desirable on general grounds.

Root Diseases.—The records under Root Diseases have been dealt with in a previous section. Root Diseases are only exceptionally acute in coffee, though most estates have some areas from which trees are lost year after year, a loss which in estate work is usually classed with the greater losses due to borer.

Insect Pests.—Borer.—Stem borer (*Xylotrechus quadripes*) still constitutes the most serious insect pest. No work on the problem has been carried out by the Scientific Officer, but the matter is under investigation by the Entomological Section of the Mysore Department of Agriculture. There are one or two cursory observations made however which deserve recording. There have been a number of cases of bored trees examined in March-April which suggest that there is a fairly considerable March brood of adult beetles, in addition to the October brood. It seems desirable that removal of bored trees should be done in two rounds, one before this March flight as well as one in the monsoon. The difficulty of burning plants removed in March is considerable owing to the risk of fire but it is highly desirable that the grubs and adults should be destroyed, before the flight occurs.

Bugs.—These have been locally serious and the delay in the commencement of the South West monsoon in 1931 aggravated the trouble. Spraying (or brushing when young plants are attacked) with Fish Oil Resin Soap remains the only treatment which checks the attacks.

Minor insect pests include Cut worms, Red Borer (*Zenzera coffea*) and grasshoppers. The last type of pest caused a slight alarm on one estate in Coorg where a number of promising young plants had their tops badly damaged by the deposition of eggs in the tissues of the green shoots. The number of plants attacked remained small and after the removal and destruction of the damaged portion, no further trouble was experienced. The adults which laid the eggs were not seen.

CORRESPONDENCE AND PUBLICATIONS.

Enquiries have been on the increase during the year. The largest proportion have been in connection with spraying problems and these have been dealt with on the basis of experience at the Experiment Station and elsewhere. Manuring enquiries occupy second place and these have been treated on the basis of the experience of the Experiment Station and of the Chemical Section of the Mysore Department of Agriculture.

A bulletin on "The Seasonal Periodicity of Coffee Leaf Disease, Second Report" was published as bulletin No. 6 of the Mysore Government Coffee Experiment Station. Three articles, "Spraying and Dusting for Coffee Leaf Disease," "Observations on Spraying Experiments" and "Die Back of Coffee" were published in the "Planters' Chronicle" during the year. A short technical note on "The Existence of Physiological Specialization in *Hemileia vastatrix* B. & Br." was sent to "Nature."

Acknowledgments.—I have to express my very great appreciation for the continued cordial advice and assistance which has been given me at all times by Dr. Coleman and his staff both at the Coffee Experiment Station and at Bangalore.

My thanks are also due to the many planters who have, from time to time, assisted me in various phases of the work here recorded. The work of the Assistant Entomologist in the short period since his engagement has amply repaid his appointment. The greater part of the account of Cockchafer and Mealy Bug are based on his reports. Distinct progress in this problem during the coming year is certain.

W. WILSON MAYNE,

Coffee Scientific Officer.

RUBBER SCIENTIFIC DEPARTMENT.

Administration Report for 1931-32.

Any report for the past year on matters pertaining to rubber cannot make other than depressing reading and it is feared the following will not provide an exception:—

Staff.—At the time of writing the station staff is as follows:—

Laboratory Assistant	.. Mr. V. T. Abraham, B.A.
Field Assistant	.. Mr. A. Krishna Pillay.
2nd Laboratory Assistant	.. Mr. K. A. Varughese.

During the year the services of the Office Writer and Mechanic have been dispensed with, on the score of economy, and their duties have devolved on the Scientific Officer and the remaining staff.

Buildings.—Only the very minimum of repair work has been carried out and, bearing in mind what was reported last year, the condition generally can be said to be satisfactory. One of the staff bungalows is now vacant and the coolies still employed have been distributed over the various lines so that they may act as watchmen.

Water Supply and Lights.—The station has been without a proper water supply throughout the year. The well constructed last year has proved entirely satisfactory but it is situated over a quarter of a mile away from the laboratory and, in the absence of a functioning pumping plant, considerable trouble has been encountered in this direction. The lighting system has given complete satisfaction and no replacements have been necessary. The wiring of the Bungalow and Laboratory will however require attention in the near future if efficient service is desired.

Health.—No detailed statement is required here. Health generally in the district is good. An outbreak of Plague occurred on an estate about seven miles away and as a precautionary measure all persons resident on the station were inoculated. At the time of writing no spread has been reported.

FIELD WORK.

Owing to the lack of any land on which to carry out any large scale experiments, this, the most important section of the work, has been badly handicapped. Negotiations with the Divisional Forest Officer were carried out early in the year with a view to obtaining a neighbouring block of thirty acres. This has recently been continued by the Secretary of the Rubber Advisory Committee but to date little progress can be reported.

Routine work, such as spraying, weeding and general upkeep of the planted area, has been attended to and the growth of the

young rubber is considered good on the whole. The small area planted up last year did not show the growth expected for some months but, with the advent of the 1932 rainy season, it has improved considerably.

Test Tapping.—This work has been continued and additional trees have been brought into the tapping round as their girths reached the dimensions required. There are now 450 trees in tapping, five having been blown down in a gale. Results have been published quarterly in the "Planters' Chronicle" and recently a full report on all the trees of which a full year's records are available has been prepared and submitted for publication. The figures there given, representing the period April 1931 to March 1932 inclusive, are such that I am able to alter the opinion expressed last year, namely, that we had no promising clones on the station. In the report mentioned are given for comparison the figures for yields obtained, at like age, from a few of the A.V.R.O.S. trees. A condensed table is here appended:—

Clone	Number of trees tapped.	Average yield per tapping in grams.
f	1	6.22
n	18	7.32
p	88	6.37
s	1	10.68
u	1	12.73
v	2	10.57
y	2	7.45
aa	1	6.67
ae	1	8.19
af	10	8.27
ag	3	7.00
aw	1	6.87
ay	1	6.19
bh	1	6.08
A. V. R. O. S.	33	11.2
	36	10.8
	49	9.9
	50	14.3
	52	11.6
	80	14.5

The latter part of the table has been compiled from figures published in the *Archief voor de Rubbercultuur*, March-April 1932.

After studying these figures it is thought most readers will agree that the results are promising. The soil on most of the station, as is well known, is on the poor side and the trees were also tapped through the dry season without rest. In August, normally a high-yielding month, only one tapping was possible. Considering everything, less favourable results might have been expected, especially as yield in South India is, in general, lower

than in most competing countries, and at the same time it has still to be proved that imported clones will yield as much latex here as in their countries of origin.

It must also be remembered that these are the first clones selected in India and there is reason to believe that some of the more recent discoveries will prove even more productive.

It is unfortunate that none of these clones can be recommended as being even relatively immune to phytophthora leaf-fall, in fact, as far as the writer is aware, no clone has yet been discovered anywhere for which this claim can be made. The trees otherwise have been remarkably free from serious disease. Four cases in all of Brown Bast have been reported on the station but none of the trees mentioned above were concerned.

Certain relationships between yield and other factors were worked out on 'p' clone and for further information the reader is referred to the report cited.

Budding.—In view of the fact that no land remains for planting purposes no serious budding programme has been carried out. A few additional clones have been introduced into the budwood nursery, one of which is reputed to be relatively insusceptible to phytophthora. In addition to the above, budding on various local estates has been inspected and assistance rendered as required.

A small budding experiment was carried out in the nursery during May. The main object was to investigate a layout which would permit of the study of several points simultaneously without unduly increasing the size of block required. The points studied were:—

- (1) Comparison of clones from the point of view of ease in budding.
- (2) The most suitable, from the point of view of actual budding, of three different stocks represented by seedlings raised from seed from three separate trees.
- (3) The most satisfactory combination of stock and scion.
- (4) The most satisfactory of three methods of budding.
- (5) The optimum date after budding for the first examination.

The results follow in brief; percentage success was not high owing to unfavourable weather (see rainfall record).

The layout of plots was such that every plant budded provided information on as many of the points raised as possible. Thus every scion was provided with a similar number of each lot of seedlings as stocks. Each combination of stock and scion had an equal number of plants budded by each of the three methods and, within

these small groups, an equal number of plants were examined at each of the intervals chosen.

Stocks used	Seed from tree Z	81
	" P,	162
	" 591	81
i.e., total plants used		324

Clones used Nos. 4, 7, 9, 14 and 15 selected because of their reputed failure to "take" well.

Nos. 16, 18, 26 and 27 clones recently introduced to the station.

Methods of budding:—

- (1) The normal method.
- (2) Method the same as above with plantain fibre substituted for tape. (Object; economy).
- (3) Here the stock was cut down to within 9 inches of the point of insertion of the bud at the time of budding and fibre only was used in the fixing of the bud. The plant was protected by a waxed paper cover as is used in grafting. (Object; to encourage early sprouting).

Dates of first examination;—

(a)	7	days after budding.
(b)	14	" "
(c)	21	" "

SUCCESS:—

Differences between clones:—

Clone	4	16 out of 36
"	7	4 " 36
"	9	17 " 36
"	14	12 " 36
"	15	21 " 36
"	16	19 " 36
"	18	15 " 36
"	26	18 " 36
"	27	15 " 36

Differences between stocks:—

Stock	Z	44 out of 81
"	P	59 " 162
"	591	34 " 81

Differences between methods of budding:—

Method	1	70 out of 108
"	2	42 " 108
"	3	25 " 108

Differences between dates of examination:—

(a)	7 days	48 out of 108
(b)	14 "	41 " 108
(c)	21 "	48 " 108

Combination of stock and scion:—

	Stock	Z	P	591
Scion	4	5	8	3
"	7	1	3	0
"	9	4	7	6
"	14	3	5	4
"	15	9	8	4
"	16	7	8	4
"	18	4	7	4
"	26	5	9	4
"	27	6	4	5

It is thought that the arrangement with slight modifications would serve the purpose should it be possible later to carry out a more extensive experiment. In the present instance it was necessary to make use of what seedlings were available in the nursery and therefore the actual layout on the land was irregular. Were this defect remedied any future trial of similar nature would permit of statistical analysis of the results.

Last year it was reported that efforts had been made to bud on to roots, etc., with a view to establishing uniform plants for a study of the effect of stock on scion. The actual budding was attended with success in a reasonable number of cases but after transplanting very few of the plants grew. Those still alive are very poor and the bud in all cases took a long time to produce a shoot. It has therefore been concluded that the method is of little use for the purpose intended.

Subsequently attempts were made in various ways to induce cuttings of rubber to strike. Poor success here also led to the abandonment of the attempt. Any plants obtained in this way are also very backward and quite useless for budding.

Nurseries.—The nurseries laid down last year have shown excellent growth and clearly demonstrate the value of careful preparation of the land. Many of the plants put out as germinated seed during July and August 1931 are now (June) 8 and 9 feet high.

LABORATORY.

Yield Records.—The weighing of the rubber from the test tapping blocks was carried out by the laboratory staff until the

station was put on a care and maintenance basis and, since then, this has been the duty of Mr. Krishna Pillay. All three assistants have however been employed in the monthly calculations and, with the increasing number of trees in tapping and the decreased staff, this has occupied much time to the partial exclusion of other work.

Distinctive Features of Clones.—Work was continued on this subject and it is now possible with practical certainty to distinguish members of at least the more promising clones. Such work will in future be simplified by the adoption of methods worked out by Dutch workers who have been able to devote considerable time to the subject.

Growth Curves of Seedlings.—Regular measurements of the heights of seedlings from individual seed mother trees have been made and growth curves constructed. It is well known that growth in rubber is irregular. A period of active elongation is succeeded by a period of inactivity, while the young leaves unfold and assume their adult state, and a further period of rest before the next spurt. It was thought that study might discover differences in the duration of these periods between the different groups, and information gained on this point would be of use in future budding operations. A stock with very short rest periods could be budded with reasonable hope of success, at almost any time. Results to date do not show any considerable differences between the various groups although individual plants vary a good deal. It was originally intended that these actual plants measured should be budded and records kept of the growth of the bud shoot. This is now impossible owing to lack of space and a study of the rooting system is contemplated instead.

Controlled Pollination.—During the 1932 flowering season Mr. Abraham was employed on this work. Cross-pollination was attempted between members of the most promising clones and also between high-yielding seedlings. In spite of the fact that much time was spent studying the peculiarities of the trees and working out a technique suitable to local conditions, his efforts were attended with reasonable success. Unfortunately he lost many of the seeds later from phytophthora attack owing to the abnormally early commencement of the rains. Information collected should prove of value if it is found possible to continue the work next season. Attempts at selfing were a failure.

General.—As will readily be understood the year's work has been affected by the opinion held in certain quarters, and frequently expressed, that the financial position would not permit of continued work at the station. There was little object in commencing long-range work under the conditions. The programme which the writer had in mind consisted largely of field work and the laying out of blocks which would in future give information on many points which require elucidation in South India. Such work has been impossible.

In closing I should like to express my thanks to the members of the staff for the way in which they have carried out their work during the year.

RAINFALL.

		1931-32	1930-31
July	...	30.82 ins.	21.13 ins.
August	..	51.13 "	12.86 "
September	...	10.02 "	29.02 "
October	...	12.73 "	30.77 "
November	...	12.04 "	22.80 "
December	...	10.34 "	3.59 "
January	...	nil	nil
February	..	3.94 "	0.21 "
March	...	5.88 "	5.03 "
April	...	9.61 "	10.67 "
May	...	30.51 "	9.60 "
June	...	18.61 "	28.75 "
Total	...	195.73 "	174.43 "

R. A. TAYLOR,
Rubber Scientific Officer.

ACCOUNTS, 1931-1932.

THE UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA. (INCORPORATED)

Income and Expenditure Account for the Year ended 31st March 1932.

EXPENDITURE.	Rs.	A. P.	Rs.	A. P.	INCOME.	Rs.	A. P.	Rs.	A. P.
HEAD OFFICE—									
To Secretary's Salary ..	10,100	0 0	14,360	0 0	By Subscriptions ..			66,805	1 9
" Assistant Secretary's Salary ..					" Interest ..	10,159	7 11		
" Deduct Amount debited to ..					" Planting Directory ..	249	2 3		
" Planters' Chronicle, Buying ..	8,400	0 0			" 1930 ..				
Agency and Scientific ..					" Planters' Chronicle as ..				
Departments ..			1,700	0 0	per separate state- ..	903	13 3		
Secretary's Motor Mileage ..			60	0 0	" Sundry Receipts ..	30	4 10	11,342	12 3
" Office Establishment ..			4,711	13 5	" Amount transferred ..				
" Rent ..			6,600	0 0	from Accumulated ..			37,714	2 4
" Postage and Telegrams ..			447	11 3	Fund ..				
" Printing and Stationery ..			776	13 3	Excess of Expenditure ..				
" Telephones and Fans ..			452	2 2	over Income trans- ..				
" Periodicals and Library ..			135	11 7	ferred to Accumulat- ..			588	10 4
" Bed Charges ..			81	7 6	ed Fund ..				
" Incidentals ..			655	14 9					
" Meetings ..			3,755	8 11					
" Audit Fees ..			500	0 0					
" Insurance ..			15	0 0					
" Depreciation ..			586	14 0					
" Legal Charges ..			477	8 0					
" Passage Money Fund ..			2,052	8 0					

THE UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA.
(INCORPORATED.)

Balance Sheet as at 31st March 1932.

CAPITAL AND LIABILITIES.	Rs.	A. P.	Rs.	A. P.	PROPERTY AND ASSETS.	Rs.	A. P.	Rs.	A. P.
ACCUMULATED FUND.—					FIXED CAPITAL EXPENDITURE.—				
As per last Balance Sheet ..	5,28,234	7	8		<i>Land at Cost Labour Department.</i>				
Less Departmental Balances incorporated in Accumulated Fund now transferred to the respective Departmental Funds shown below:					Coimbatore ..	8,075	0	0	
Labour Department Rs. 3,085 0 2					Palamcottah ..	2,247	8	0	
Tea Scientific Department Rs. 2,323 13 0					Nagercoil ..	5,846	7	9	
Coffee Scientific Department Rs. 6,980 2 3					Mysore ..	5,317	0	0	
					<i>Buildings at Cost Labour Department.</i>			21,485	15
					Coimbatore ..	31,413	8	6	
					Mysore ..	27,172	11	4	
					Palamcottah ..	28,888	14	9	
					Nagercoil ..	14,153	8	3	
					Less Depreciation to date	1,01,628	10	10	
						18,854	11	0	82,773
									15
									10

[illegible]

Balance Sheet as at 31st March 1932—(continued.)

CAPITAL AND LIABILITIES.	Rs.			Rs.			PROPERTY AND ASSETS.			Rs.		
	A.	P.		A.	P.					A.	P.	
LABOUR DEPARTMENT							<i>Laboratory Apparatus at Cost.—</i>					
Amount transferred from Accumulated Fund ..	3,085	6	2				Nellakottah Tea Experimental Station.	9,243	1	0		
Add Excess of Income over Expenditure for the year ..	4,724	3	11				Less Depreciation to date ..	6,953	1	0		
							STATIONARY AND CON-TRACT FORMS.				2,290	0
TEA SCIENTIFIC DEPARTMENT FUND.—							ADVANCES.—				980	10
Amount transferred from Accumulated Fund ..	2,323	13	0				Motor Car and Cycle Advances at Head Office and Divisions.	5,902	8	0		
Add Excess of Income over Expenditure for the year ..	11,991	4	0				Furlough Pay ..	486	0	0		
							Sundries ..	220	0	0		
COFFEE SCIENTIFIC DEPARTMENT FUND.—							BOOK DEBTS.—				6,608	8
Amount transferred from Accumulated Fund ..	6,080	2	3				At Head Office Considered Good ..	8,421	9	6		
Less Excess of Expenditure over Income for the year ..	4,014	13	0				At Divisions Considered Good ..	2,281	1	11		
							Planters' Chronicle Considered Good ..	402	12	8		
											11,105	8
												1

Balance Sheet as at 31st March 1932—(concluded.)

CAPITAL AND LIABILITIES.	Rs.	A.	P.	Rs.	A.	P.	PROPERTY AND ASSETS.	Rs.	A.	P.	Rs.	A.	P.
<i>Planters' Chronicle.</i> —													
Due by U.P.A.S.I. on Current Account.				488	7	11	With Co-operative Banking Union Ltd. Srivilliputtur ..	3,999	0	0			
<i>Head Office.</i> —							Cash and Stamps at Divisions and Agencies ..	37,453	6	2			
Audit Fee ..	500	0	0				Cash and Railway Coupons at Head Office ..	171	3	4			
Sundry Creditors ..	544	11	6								1,65,388	6	9
Planting Directory ..	1,811	9	6										
1932 Account ..				2,856	5	0							
Total ..				6,14,757	2	6	Total ..				6,14,757	2	6

MADRAS, 4th July 1932. R. N. W. JODRELL, *Secretary, U. P. A. S. I.* C. H. BROCK, *Chairman.*

Report of the Auditors to the Members of the United Planters' Association of Southern India—(Incorporated).
We have audited the Balance Sheet of the UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA (INCORPORATED) as at 31st March 1932 and above set forth and have obtained all the information and explanations we have required.

In our opinion such Balance Sheet is drawn up in conformity with the Law and exhibits a true and correct view of the state of the Association's affairs according to the best of our information and the explanations given to us and as shown by the books of the Association and the returns from the Divisions.

FRASER & ROSS, } *Auditors.*
Chartered Accountants

BUDGET, 1932-1933.

THE UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA.

(INCORPORATED)

BUDGET, 1932-33.

(As amended at the Annual Meeting 1932.)

EXPENDITURE.	Rs.	Rs.	INCOME.	Rs.
HEAD OFFICE—			SUBSCRIPTIONS—	
Secretary	..	9,960	Tea 121,300 acres at 10 as. 6 p...	75,812
Asst. Secretary	..	10,700	Coffee 45,300 " at 6 as. 9 p. ..	19,111
Less Share of "Chronicle", etc.	..	8,400	Min. Pro. 4,500 " at 5 as. ..	1,406
Office Establishment	..	16,843	Rubber 21,936 " at 1 anna. ..	1,371
Less Share of "Chronicle", etc.	..	2,172	Firm Members	3,300
Rents	..	500	Interest	1,01,000
Postages & Telegrams	..	850	Sundry Receipts	7,500
Printing and Stationery	..	450		1,500
Telephones & Fans	..	198		
Periodicals & Library	..	80		
Bank Charges	..	400		
Incidentals	..			
Meetings	..	3,500		
Audit Fees	..	500		
Insurance & Depreciation	..	415		
		2,478		
		4,415		

Passage Money Fund	650				
Provident Funds	2,476				
Mr. Waddington's Pension	6,000				
Employers' Federation of S. I.	250				
Labour Department Grant	60,000				
Political Department	12,000				
Total..	1,10,000				1,10,000
LABOUR DEPARTMENT—					
Director's Office					
Coimbatore Division					
Mangalore	36,864	13,930			1,51,071
Mysore	31,700				23,203
Palamcottah	29,378				1,361
Salem	41,645				1,75,795
Srivilliputtur	29,100				1,402
	37,560	2,06,247			60,000
Overhead Charges—					7,250
Asst. Superintendent	7,495				
Passage Money Fund	3,645				
Audit Fees	2,400				
Provident Funds	10,730				
		24,270			
Total..		2,44,447		Total..	2,44,447

Cess from Subscribing Estates—

Tea 89,500 acres at 1 Re. 11 as.

Coffee 27,500 acres at 13 as. 6 p.

Min. Pro. 3,700 acres at 6 as. 9 p.

THE UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA.

(INCORPORATED.)

BUDGET, 1932-33.—(contd.)

EXPENDITURE.	Rs.	INCOME.	Rs.
TEA SCIENTIFIC DEPARTMENT—			
Staff and Allowances ..	31,162	Share of Madras Government Contribution ..	16,968
General Expenditure ..	14,603	Sundry Receipts ..	543
Depreciation ..	6,030	Cess on 1,21,300 acres at 4 as. to be	30,325
Passage Money Fund ..	1,665	taken from the Accumulated Tea Fund ..	10,794
Provident Funds ..	2,670	Balance excess of Expenditure over Income..	
Contribution to I. T. A. ..	2,500		
Total..	58,630	Total..	58,630
COFFEE SCIENTIFIC DEPARTMENT—			
Staff and Allowances ..	10,650	Cess on 30,000 acres at 1 as. ..	1,875
General Expenditure ..	2,997	Share of Madras Government Contribution..	6,440
Passage Money Fund ..	240	Coorg Government Grant ..	2,350
Provident Funds ..	950	Balance excess of Expenditure over	4,172
		Income ..	
Total..	14,837	Total..	14,837

RUBBER SCIENTIFIC DEPARTMENT—

NOTE.—This is the original estimate passed in March except for reduced contributions from Governments and the R. G. A. A reduced expenditure estimate will be issued later on receipt of the Rubber Advisory Committee's recommendations.

	Rs.		Rs.
Staff and Allowances	..	Share of Madras Government Contribution ..	4,592
General Expenditure	..	R. G. A. Grant, 9 months	1,970
Depreciation	..	Sundry Receipts	100
Provident Funds	..	Balance excess of Expenditure over Income..	5,638
Total..	12,300	Total..	12,300

MADRAS,
1st Sept. 1932.

C. H. BROCK,
Secretary.

APPENDIX.

Rules of the U. P. A. S. I. (Incorporated).

I. Each District Association shall register with the Secretary not later than 1st day of January each year details of the area on which subscriptions due to the U.P.A.S.I. are to be calculated for the ensuing year.

II. The Chairman shall be elected by ballot at the Ordinary General Meeting of the Association held each year and shall hold Office until a successor has been duly elected.

III. Should the Office of Chairman become vacant the Executive Committee shall appoint one of its members to hold office and fill the consequent vacancy in the Committee, such appointments to hold good until the next Ordinary General Meeting of the Association.

IV. In the absence of the Chairman in the case of any Banking Accounts requiring two signatures those of the Secretary and any member of the Executive Committee shall suffice.

V. The election of the Executive Committee shall be by ballot, representatives of each industry to be elected by the votes of the area under the corresponding products only.

VI. No subject other than those on the published Agenda shall be discussed except with the consent of the meeting. No original proposition shall be made unless thirty days notice in the case of an Ordinary Meeting and fourteen days notice in the case of a General Committee Meeting, stating objects and reasons, has been given to the Secretary, except with the consent of the Executive Committee with which a copy of the proposed resolution has been lodged at least two days before the meeting.

VII. In addition to its two nominated representatives each District Association may send three of its members to attend the General Meeting of the Association who shall be allowed to address the meeting, with the permission of the Chairman, but shall not vote.

VIII. The Budget for the ensuing year shall be submitted to the General Committee before the 1st day of March and the Budget Meeting of the General Committee be held at any convenient date in the latter half of March each year.

IX. The Trustee of the Cochin Port Trust representing the Association shall always, if possible, be a planter and shall be elected by the postal vote of the active Members of the Executive Committee.

X. When declaring acreage for any one year, District Associations may reduce their previously declared areas on account of areas actually abandoned. The word "abandoned" shall be taken to mean:

- (a) Any area from which no crop is harvested, and
- (b) on which no agricultural operations are conducted, during that financial year in both cases.

XI. District Associations shall be entitled to include in their voting acreage such areas as are exempted from subscriptions under the "abandoned" area rule.

THE U. P. A. S. I. BUYING AGENCY (U.B.A.)

Rules.

1. The Agency is and shall be a Department of the United Planters' Association of Southern India, and as such its affairs shall be administered by the General and Executive Committees of that body and the Secretary shall be the Secretary of the U.P.A.S.I.

2. As an Agency to obtain concessions as regards prices charged for goods supplied or services rendered its members in return for prompt payment and to encourage combination in placing buying orders.

3. The following shall be entitled to membership on the payment of an annual subscription of Rs. 10 which may be collected by the Secretary forwarding the Membership Ticket by V. P. Post for Rs. 10-4-0.

All Members and European employees of Members of the U.P.A.S.I., all Members of District Associations which are members of the U.P.A.S.I., and all European employees of the U.P.A.S.I.

4. Membership shall be reckoned from the 1st of the month nearest to the date of receipt of application and all renewals shall date from the expiry of the previous ticket, in no case shall any allowance be made for absence on leave or any ticket be issued for a period of less than twelve months. Any member whose subscription is one year in arrears shall cease to be a member.

5. A member's subscription will cover purchases by himself or any actual dependent and all purchases for any estate of which he is Superintendent or Owner (otherwise than as a Director or Shareholder only) if they subscribe to a District Association which is a member of the U.P.A.S.I.

6. Members failing to settle their accounts with Firms in the list as provided for in Rule VII will be liable to have their names removed from the list of members and cease to be entitled to any of the benefits obtained by the Agency.

7. The names of Firms, Companies and persons who agree to grant special terms to Members of the Agency shall be entered in a list kept for that purpose which shall from time to time be circulated to all Members; and such firms, Companies and persons shall be furnished periodically with the Agency list of members.

8. The Agency will not be responsible in any way for the action of its members or of the firms, Companies, and others granting special terms.

9. Any balance being a Profit at the end of a year shall be credited to the Southern India Planters' Benevolent Fund.

10. In no case shall the Secretary act as the agent of a member in any business connected with the Agency.

**SOUTHERN INDIA PLANTERS' BENEVOLENT
FUND.**

*Registered under the Societies' Registration Act XXI of
1860 on the 22nd January 1924.*

Resolution of 1909.

PASSED ON AUGUST 13th, 1909.

"That in view of the great benefits a Benevolent Fund would confer on the whole Planting Community, this Association recommends the starting of a Benevolent Fund for the Planters of Southern India on the lines drawn up by this meeting, and that the Secretaries of local District Associations be requested to collect subscriptions and forward such to the Secretary, U.P.A.S.I."

**Memorandum of Association of the Southern India
Planters' Benevolent Fund.**

1. The name of the Association is the Southern India Planters' Benevolent Fund hereinafter referred to as "The Fund."
 2. The objects for which the Association has been started are:—
 - (a) To give temporary assistance to members or to dependents of members who are in distress as the result of any good and sufficient cause.
 - (b) To give temporary assistance in special cases to dependents of European planters who are not members.
 - (c) Generally to make such use of the funds of the Association as will best effect the carrying out of the aforesaid objects or any of them, but in no case is it intended to provide an annual income.
-

Rules and Regulations of the Southern India Planters' Benevolent Fund.

Membership. 1. Subject to Rule 4 the following shall be entitled to membership:—

- (a) Any European Proprietor, Manager, Superintendent, Assistant or Recruiter of an Estate subscribing to a District Planters' Association which is a Member of the United Planters' Association of Southern India or who is himself a subscriber to such an Association or any European Employee of the United Planters' Association of Southern India on payment of a minimum subscription of Rs. 10 per annum.
- (b) Any Estate subscribing to a District Planters' Association which is a member of the United Planters' Association of Southern India or any member of the United Planters' Association of Southern India on payment of a minimum subscription of Rs. 25 per annum.

Life Membership. 2. A donor of Rs. 200 or any member subscribing Rs. 200 within a period not exceeding five years shall be considered a Life Member and entitled to the benefits of the Fund without payment of further subscriptions.

Patrons and Life Members. 3. A donor of Rs. 1,000 either in one or more instalments shall be welcomed as a patron and shall be considered a LIFE MEMBER and be entitled to all benefits of the Fund, and shall not be subject to the provisions of Rule 8.

Application for Membership and Committee rights of refusal. 4. All first subscriptions and applications for membership shall be sent to the Secretary on a form to be prescribed by the General Committee through the Honorary Secretaries of District Planters' Associations, who shall certify that the applicant is eligible for membership under Rule 1 and the Executive Committee shall have the right of refusing any subscription and rejecting any application for membership.

Withdrawal of Membership. 5. Any member shall have the right of resigning his membership by giving notice in writing to the Secretary on or before the 31st March of any year provided that his subscription shall have been paid up to the 31st of March of that year.

Subscription due on 1st April. 6. All subscriptions shall be due on the 1st April each year and the Secretary or Honorary Secretaries of local Associations shall collect the same.

Subscriptions in arrears. 7. Any member whose subscription is more than one year in arrears shall only be entitled to such benefit as is allowed under Rule 22 which restriction shall remain in force for two years after payment of such arrears.

- Change of Profession.** 8. Any member except a donor of Rs. 1,000 who by reason of change in his profession or employment would not be eligible for membership under Rule 1 but wishes to retain his membership shall submit an application to remain a member to the Secretary for the decision of the Executive Committee whose decision shall be final.
- Donations.** 9. All subscriptions of less than the minimum laid down in Rule 1 or received from persons not eligible for membership shall be treated as donations to the Fund.
- Constitution.** 10. The Fund shall be administered by a General Committee composed of the Members of the General Committee of the United Planters' Association of Southern India, whose Secretary shall also be the Secretary of the Fund.
- Executive Committee.** 11. The General Committee shall appoint an Executive Committee and may delegate to it any of the powers of the General Committee except those of making, altering or repealing by-laws.
- Powers of General Committee.** 12. The General Committee shall have power—
- (a) to arrange for meetings of the members of the Fund and for its own meetings and to regulate the procedure at all such meetings including the system of voting and to alter such procedure;
 - (b) to make, alter and repeal all such by-laws as they may deem necessary or convenient for the proper conduct and management of the Fund provided that no by-law shall be inconsistent with or shall affect or repeal anything contained in the Memorandum of Association or the Rules of the Fund.
- Quorum at Meeting of General Committee.** 13. At any meeting of the General Committee 7 members shall form a quorum of whom no two shall be members of the same Planters' District Association.
- Trustees.** 14. The Chairman and the Secretary of the United Planters' Association of Southern India shall be the Trustees of the Fund for the time being.
- Vesting of Property.** 15. All the property of the Fund moveable and immoveable shall vest in the Trustees and all documents relating to and affecting the property of the Fund shall be taken and stand in the name of the Fund; all documents relating to the properties of the Fund shall be executed by the Trustees for and on behalf of the Fund.
- Suits by and against the Fund.** 16. The Fund shall sue or be sued in the name of the Secretary.
- Banking.** 17. All subscriptions and monies received shall be paid into a separate account with the Imperial Bank of India, and it shall require the joint signatures of the Trustees to draw any money from the account.

investments. 18. The monies of the Fund shall be invested in any investments allowed by the law for the time being in force for the investments of Trust Funds, or they may be placed in fixed deposit with the Imperial Bank of India.

Application for Assistance. 19. All applications for assistance or relief shall be made on a form to be prescribed by the General Committee and forwarded to the Executive Committee through the Secretary. Applications for assistance for employees of the United Planters' Association of Southern India shall be made direct to the Executive Committee by the Chairman of the United Planters' Association of Southern India.

Limitation of Objects. 20. No grants involving periodical payments shall in the first instance or in case of subsequent renewal be made for longer period than six months. It shall, however, be competent for anyone in distress to apply for further relief and the Executive Committee may render such assistance if the Funds are sufficient to meet the deserving cases of first applicants. In no case shall first class passages be granted if second class are available.

Right of District Associations to grant emergency Assistance. 21. The Secretary of any District Association may, with the sanction of his Association or Committee, give temporary relief in case of emergency to the extent of Rs. 100 in any one case provided that the applicant for relief is a member of the Fund or a dependent of a member.

Grants to Non-Member. 22. Dependents of European Planters other than members may receive assistance from the Fund only on the unanimous recommendation of the Committee or other administrative body of the Planters' District Association recommending such assistance.

Repeal or Amendment of Rules. 23. These rules may be added to, repealed, or amended by resolution at any General Meeting of the Fund of which at least three months' notice shall have been given provided that no such resolution shall be deemed to have been passed unless it be carried by a majority of at least three-fifths of the members voting thereon.

BY-LAWS.

Confirmed at the First Annual General Meeting held at Bangalore on the 23rd October 1924.

1. That the Annual General Meeting shall be held at the same place and at about the same time as the Annual General Meeting of the United Planters' Association of Southern India.

2. That at all General Meetings voting shall only be by Patrons and District Planters' Associations, members of the U.P.A.S.I. or their representatives and the Chairman of the U.P.A.S.I. Each Patron shall be entitled to five votes. The Chairman of the U.P.A.S.I. shall exercise the votes of the employees of the U.P.A.S.I. and such other members of the Funds as would otherwise be unrepresented. Representatives of District Associations and the Chairman of the U.P.A.S.I. shall be entitled to two votes for every Life Member represented and one vote for each ten rupees of the current year's subscription received before the date of the meeting from members represented by them.

PATRONS.

The Travancore Combined Planters' Association.

The Mysore Planters' Association.

The English and Scottish Joint Co-operative Wholesale Society, Ltd.

The Yendayar Estate.

The Nenmeny and Redlynch Estates.

Mr. J. J. Murphy.

Mr. C. R. T. Congreve.

Messrs. Volkart Bros.

„ Mangles Bros.

„ Stanmore (Anamallay) Estates Co., Ltd.

„ Nonsuch Tea Estates Ltd.

„ Sholayar Estate.

LIST OF LIFE MEMBERS.

T. H. Allan & Co.	Kinalur Rubber Co. Ltd.
Anupura Coffee Works Co. Ltd.	Koragamudi Estate.
Aspinwall & Co. Ltd.	Kuttiadi Rubber Co. Ltd.
Sir Fairless Barber, Kt.	R. Lescher.
S. Bayly.	J. Mackie.
Binny's Estates Ltd.	C. A. Mackenzie.
Lt.-Col. C. H. Brock, O.B.E., V.D.	Malayalam Plantations, Ltd.
Castlecroft Estate.	B. A. Marden.
F. Sydenham Clarke.	Marshall Sons & Co. Ltd.
Colombo Commercial Co. Ltd.	G. A. Marsh.
Consolidated Coffee Estates Ltd.	C. L. McLean.
C. Courpalais.	Brooke Mockett.
Lt.-Col. W. L. Crawford, D.S.O.	Mundakayam V. Rubber Co.
H. Cuthell.	Muskal Bora Estate.
A. S. Dandison.	L. Newcome.
Darragh Smail & Co. Ltd.	K. E. Nicoll.
Eddivanna Rubber Co. Ltd.	G. R. Oliver.
D. Elkington.	Peirce, Leslie & Co. Ltd.
G. P. Farley.	Portland Estate.
E. T. C. Farr.	Presidency Manure Works.
R. G. Foster.	Pudukad Rubber Co. Ltd.
J. F. Fraser.	Puthutotam Estate.
T. P. Gauld.	J. A. Richardson.
G. L. H. Gibson.	J. H. Robinson.
C. H. Godfrey.	R. Ross.
C. J. Hall.	A. J. Saldanha & Sons.
E. Hall.	Sheikalmudi Estate.
E. H. Halliley.	E. W. Simcock.
J. G. Hamilton.	Sir R. Stanes, Kt.
R. Harley.	Tea Estates India, Ltd.
Harrisons and Crosfield, Ltd.	Thodapuzha Rubber Co. Ltd.
C. St. John Ives.	Travancore Rubber Co. Ltd.
J. H. Ireland Jones.	J. R. Vincent.
Karamalai Estate.	H. Waddington.
Kerala Calicut Estates Ltd.	J. S. B. Wallace.
	H. J. Walmesley.
	Capt. E. G. Windle.
	Woodlands and Olands Estates.
	W. Woodman.
	B. Wolde.

REPORT
OF THE
NINTH ANNUAL GENERAL MEETING
OF THE
SOUTHERN INDIA PLANTERS' BENEVOLENT FUND.
(INCORPORATED.)

The Ninth Annual General Meeting of the Southern India Planters' Benevolent Fund (Incorporated) opened at the Mayo Hall on Monday, the 16th August 1932, commencing at 3 p.m.

The following were present:—

Mr. C. R. T. Congreve	<i>Chairman,</i>
Lt.-Col. C. H. Brock	<i>Secretary,</i>
Lt.-Comdr. E. L. Hill	<i>Asst. Secretary.</i>

and the following representatives of Members:—

Anamallais	.. Messrs. J. C. Blackham & E. E. Ranicar,
Central Travancore	.. " W. A. J. Milner & C. J. Madden,
Coorg	.. " L. Newcome & J. S. H. Morgan,
Kanan Devans	.. " G. R. Strachan & J. S. B. Wallace,
Mundakayam	.. Mr. W. A. J. Milner,
Mysore	.. Messrs. L. Newcome, G. Q. Archard & R. C. Morris,
Nelliampathies	.. Mr. J. S. B. Wallace,
Nilgiris	.. Mr. C. L. Greig,
Nilgiri-Wynaad	.. Messrs. R. Fowke & R. M. Greig,
Shevaroyas	.. Messrs. E. H. A. Travers-Drapes & P. V. Briscoe,
South Travancore	.. Mr. R. N. W. Jodrell,
West Coast	.. Mr. H. J. Walmsley,
Wynaad	.. Messrs. R. N. W. Jodrell & I. W. Finlayson.

The notice calling the meeting was read.

The Chairman.—You have first to confirm the proceedings of the last Annual General Meeting held on the 19th August 1931, published in full in the Book of Proceedings. Have I your permission to sign the minutes as a correct record?

The meeting having signified their assent, the Chairman then asked the Secretary to read the Report on the working of the Fund for the year ending 31st March 1932.

Secretary's Report for the year ending 31st March 1932.

Membership.—The number of Planter Members subscribing to the Fund decreased during the year from 355 to 303, but thanks to the generosity of some members, especially in three districts, who

have subscribed one day's pay or more instead of the usual Rs. 10, the amount received was Rs. 5,133-4-2 as against Rs. 4,010-4-0 last year.

The number of estate members increased from 89 to 104 subscribing Rs. 3,695 as compared with Rs. 3,275 last year.

In this connection it may be mentioned that an attempt was made to carry out the suggestion, put forward by Mr. Newcome at last year's Annual Meeting, to collect subscriptions by Banker's Order Forms, or by V. P. Post under standing instructions. Banker's Order Forms were printed and circulated to all District Associations, but up-to-date, only 56 planters and estates have made use of them, and the number of standing orders for collection by V. P. Post is but 9. Although subscriptions are due on the 1st April each year, as a rule they do not come in until the second half of the year. Last year in the first six months only Rs. 2,343 had been received or less than the quarter of the year's subscription, and consequently the Fund was short of cash at 30th September 1931 by nearly Rs. 3,000, and a fixed deposit falling due about that date could not be re-invested until the end of the year as the bulk of subscriptions only came in with a rush during the last two months of the financial year. If only the Banker's Order system were more generally made use of by subscribers, this continually re-occurring shortage of ready money for nine months of the year would disappear.

Donations.—During the year 34 planters, 4 Estates, 5 District Associations and 10 Firms gave donations amounting to Rs. 1,431-10-6, which is Rs. 261-10-6 more than was received in donations last year.

Income.—The total receipts from subscriptions and donations amounted to Rs. 10,000-8-8. Interest on investments realised Rs. 4,795-12-6 and the balance transferred from the Buying Agency was Rs. 1,286-15-5. These make the total income for the year Rs. 16,083-4-7.

Expenditure.—Assistance granted amounted to Rs. 11,441-12-5, and included the maintenance and education of eight children, allowances to two invalid planters and four widows, and passages out of India to four families. Running expenses amounted to Rs. 67-12-9 and depreciation on investments to Rs. 231-4-0, bringing the total expenditure to Rs. 11,740-13-2, and leaving Rs. 4,342-7-5 to be added to the General Fund which now stands at Rs. 1,20,798-9-3.

Investments.—The question of investments of the monies of the Fund caused the Trustees a certain amount of anxiety during the year. Half of the total funds were in fixed deposit with the Imperial Bank and were only earning $3\frac{1}{4}$ per cent. As these fell due from time to time the Bank would only offer 4 per cent when 5 per cent and even more was being offered by other Banks with whom deposits could not be made under the Rules of the Fund. They therefore decided to invest all deposits falling due in such Indian Government Loans as showed, at the moment of purchase, the best yield for the market price.

Almost at the end of the financial year it was realised that investments in Government securities for an incorporated Benevolent Fund such as this could obtain exemption from income-tax. Steps were taken to secure this, and now we have obtained exemption of tax on all our Government scrip.

For the five years 1921-22 to 1925-26, the average yield of interest on the investments of the Fund was 4.40 per cent. In the next five years, 1926-27 to 1930-31, it dropped to 3.82 per cent owing to the decline in Bank rates. Last year the interest realised was 4.28 per cent. In the current year the remaining Bank fixed deposits will mature and be invested in Government stock. This, combined with the remission of income-tax now obtained, will improve the average rate of interest considerably.

Lastly, a decision had to be made regarding the Fund's holding of £3,000 of 5 per cent British War Bonds. The Committee resolved to have these redeemed and invested in Government of India Rupee Loans. This will mean a certain amount of loss as they stood at a premium at the end of the financial year, and at the date of redemption it is probable that exchange will be somewhat adverse compared to what it was when the Bonds were bought. This however will be amply covered by the increased value of the other investments which now stand at some Rs. 2,000 more than as shown in the books of the Fund.

The Chairman.—You all have heard the Secretary's Report. Has any one anything to say, any criticisms to make or are there any questions you would like to ask?

Mr. J. C. Blackham.—May I draw the attention of the meeting to the high rate charged by the Bank for paying money on Banker's Order Form. The Bank is charging 12 annas which was very high.

Mr. Travers-Drapes.—I agree with Mr. Blackham.

Mr. J. S. B. Wallace.—I should like to congratulate the Fund on its sound position. I hope the Executive Committee are going to help all deserving cases which come up for consideration. The Fund has shown a surplus of Rs. 4,000 for the current year.

The Chairman.—I propose from the Chair:—

"That the Secretary's Report be adopted."

The Resolution was carried.

Accounts 1931-32.

The Chairman.—The Accounts have been printed and circulated. You all have copies of them. Have you any questions or criticisms to make?

Mr. G. R. Strachan.—I fully realise what has been done by the Executive Committee to help deserving cases. It was not possible for the Fund to help all cases that come up before it. I think there are a good many who think that the Committee of the Fund are

rather stingy with the money. Personally I fully realise the position. I have received a letter from a West Coast Planter saying that it was an extraordinary thing how in these hard times the Benevolent Fund was not useful for all Planters who needed help, and it therefore seemed quite unnecessary for him to subscribe. I take it that the chief reason is that most men have lost their billets and they are in need of help especially at this time.

Mr. R. N. W. Jodrell.—As a member of the Executive Committee I would like to explain that every application for assistance which had come up for consideration before us had received our careful attention. The Committee had sent home a few planters paid their passages and also gave them some home allowance. If you know of any particular case which the Committee has turned down, it should be brought up and dealt with. I personally know of no deserving case in which support has not been given and which came under the rules.

Mr. L. Newcome.—I endorse Mr. Strachan's remark and am in thorough agreement with the West Coast Planter's letter. The Rules of the Fund should be altered.

The Chairman.—I personally think that the rules are very hard and the Executive Committee have thought so too. In some cases we have gone outside the Rules. The functions of the Executive Committee are to act in accordance with the rules, and it is extremely difficult to go beyond the rules. I think the rules require altering. With the rules as they are we have been unable to give assistance in certain cases, as we could not go against the rules. Last year in particular, as subscriptions were paid in a rush during the last three months of the year, the Executive Committee did not know for certain whether the Fund would be self-supporting or not. The Committee were faced with a deficit for the first nine months of the year and as such they had to adhere to the Rules strictly and to refuse assistance in certain cases, though they might have been very deserving ones. The calls on the Fund are sure to be heavier still in the future, as more and more people are every day being thrown out of employment. It is certain there will be many new cases coming up in the near future which will require assistance.

Mr. L. Newcome.—I think that whenever necessary, the Fund should draw on its Reserves to help needy cases.

The Chairman.—I propose from the Chair:—

"That the Accounts for 1931-32 be adopted."

The Resolution was carried.

Rules.

The Chairman.—Now coming to the question of Rules, the Mysore Planters' Association have given notice of a Resolution. Under Rule 23 of the Fund, Rules can only be repealed or amended by resolution at any General Meeting of the Fund of which at least three months' notice shall have been given, and it must be carried by

a majority of at least three-fifths of the members voting thereon. Unfortunately the Mysore Association resolution was only received on the 24th June, and hence no alterations in the rules can take place at this meeting. I will, however, ask the Mysore delegate to speak to the resolution, and if any alterations in the Rules are agreed to by this Meeting, arrangements may be made to call a Special General Meeting to pass them in the formal manner. The resolution proposed reads:—

“That this Association proposes that in future any one Patron or any five Life Members may nominate any one South Indian Planter or his dependants for assistance from the S.I.P.B. Fund of not more than Rs. 25 per month for a period of six months.”

Mr. L. Newcome.—My Association wishes to bring up the suggested alteration to the Rule as we thought deserving cases were turned down owing to the present Rules. Recently my Association unanimously recommended two cases for assistance, but they were turned down by the Executive Committee of the Fund. As we knew these two cases to be very deserving it meant we had, in addition to subscribing to the Fund, to put our hands into our pockets to help them as well. Therefore we consider that the Rules require alteration. Many members of our Association are against the present rules, and some members even wanted to resign from the Fund as the Fund was not for all the deserving and needy.

Mr. A. F. J. Nicolls.—I would like to take the blame for turning down these two cases.

The Chairman.—For the information of the Mysore members, I may inform you that one of these two cases was again gone into at the last Executive Committee Meeting held yesterday, and we had agreed to pay a certain sum per month for six months. After a good deal of consideration and practically against the rules we have taken the responsibility of helping this case and, if you wish you would be in order even to pass a vote of censure on the Committee. I do think that the Executive Committee as Trustees of the Fund should have fuller discretion. You elected the Executive Committee as you had confidence in them and considered them capable of doing right, so a certain amount of discretion should therefore be given them. It would be an excellent thing to place on record that the new Executive Committee be asked to go thoroughly into the Rules and to re-cast them as they think best, and bring their recommendations up for consideration at the next General Committee Meeting.

If any one has anything further to say I propose from the Chair:—

“ That the new Executive Committee be asked to go into the question of revising the Rules so as to give more latitude.”

The Resolution was carried.

The Chairman.—I will ask the Mysore Association to speak to their resolution of which notice has been given. It reads as follows:—

"That the Committee of the Benevolent Fund be requested to examine carefully all regular payments at present being made."

I have a list here of payments that are being made with full details about them, which I will read out, so that you will all exactly know what monthly payments are being made.

He then read out the various items of assistance in detail and explained that the most expensive items of their assistance was the education of the children of deceased planters.

Mr. G. Q. Archard.—The object of my Association in bringing up this resolution was that we thought that assistance was not being properly given to all the needy. The resolution was not unanimously passed at the meeting, but the members concerned had advanced sufficient reasons for moving the resolution, and therefore they wished to bring it up to this meeting.

The Chairman.—It is up to the District Association to propose an alteration in the Rules, or to make suggestions, but I would like to point out that the Executive Committee never consider any case unless it has been recommended by the District Association. Secondly, the amount recommended to be given as assistance is also considered. I can assert, however, that the Committee have never cut down the amount recommended, nor have they refused assistance to any case except after very careful consideration. You cannot therefore blame the Executive Committee.

The West Coast Planters' Association passed the following resolution at their General Meeting held on the 16th July:—

"That this Association is of opinion that the Benevolent Fund should be recognised as a purely charitable organisation, and that the Executive Committee should not be bound by any rules, except that they should take no action which would be binding beyond their term of office and that usually the beneficiaries should be Europeans."

I will ask the West Coast delegate to speak on this resolution.

Mr. H. J. Walmsley.—I think that everything that can be said, has been said. If the new Executive Committee are going into the matter carefully I would leave it to them. But I wish to point out that the Committee and the members of the Fund must remember that it is a Benevolent Fund and not a Provident Fund.

The Chairman.—I assure you it is a most unpleasant job to administer the Fund. Anybody who wishes to put up suggestions can do so to the in-coming Executive Committee, and I am sure they would be gratefully received.

The Chairman then declared the meeting closed.

THE SOUTHERN INDIA PLANTERS' BENEVOLENT FUND ACCOUNT.

Balance Sheet as at 31st March 1932.

LIABILITIES.		Rs.	A. P.	Rs.	A. P.	ASSETS.		Rs.	A. P.	Rs.	A. P.
GENERAL FUND ACCOUNT.—											
Balance as per last Balance Sheet ..		1,16,456	1 10			INVESTMENTS.—					
Add Excess of Income over Expenditure ..		4,342	7 5	1,20,798	9 3	Rs. 18,500, 31% Government Paper ..		11,470	0 0		
						British War Loan 1929—47 ..		40,658	2 6		
						Rs. 5,000, 5% Government Bonds 1945—55 ..		5,075	0 0		
						Rs. 9,000, 6% Government Bonds 1933—36 ..		8,871	14 0		
						Rs. 2,000, 6½% Treasury Bonds 1935 ..		2,000	0 0		
						Fixed Deposit with the Imperial Bank of India, Madras ..		44,000	0 0	1,12,075	0 6
						INTEREST ACCRUED ON INVESTMENTS.—				2,383	9 3
						IMPERIAL BANK OF INDIA.—					
						Current Account ..				6,339	15 6
Total Rs. ..				1,20,798	9 3	Total Rs. ..				1,20,798	9 3

MADRAS, 4th July, 1932.

Examined and found correct.

FRASER & ROSS. * Auditors.

THE SOUTHERN INDIA PLANTERS' BENEVOLENT FUND ACCOUNT.

Income and Expenditure Account for the year ended 31st March 1932.

EXPENDITURE.	Rs.	A. P.	Rs.	A. P.	INCOME.	Rs.	A. P.	Rs.	A. P.
To ASSISTANCE GRANTED. —									
Case No. 1 Widow ..	900	0 0			By Subscriptions and Donations ..			10,000	8 8
Case No. 2 Widow ..	600	0 0			By Interest on Fixed Deposits and Government Bonds ..			4,795	12 6
Case No. 3 Maintenance of 1 Child ..	600	0 0			By Amount transferred from Buying Agency			1,286	15 5
Case No. 4 Education of 2 Boys & 1 Girl ..	1,774	8 0							
Case No. 5 Invalid Planter and wife ..	1,202	6 0							
Case No. 6 Passage and Home Allowance; Destitute Planter's Wife and Children ..	1,573	13 9							
Case No. 7 Invalid Planter ..	403	2 10							
Case No. 8 School fee of 1 Girl ..	156	0 0							
Case No. 9 School fee of 2 Girls and 1 Boy ..	102	0 0							
Case No. 10 Passage and Home Allowance for Invalid Planter ..	1,581	5 0							
Case No. 11 Widow ..	345	10 1							

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**THE
UNITED PLANTERS' ASSOCIATION
OF
SOUTHERN INDIA**
(INCORPORATED)

FORTIETH ANNUAL GENERAL MEETING

HELD AT

BANGALORE

ON

14th, 15th and 16th August, 1933.

WITH APPENDICES.

MADRAS
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1933.

The United Planters' Association OF Southern India.

(INCORPORATED)

ESTABLISHED 1894, INCORPORATED 1899,
REORGANIZED 1919.

MEMBERS.

District Planters' Associations.

ANAMALLAI PLANTERS' ASSOCIATION.
CENTRAL TRAVANCORE PLANTERS' ASSOCIATION.
COORG PLANTERS' ASSOCIATION.
KANAN DEVAN PLANTERS' ASSOCIATION.
MUNDAKAYAM PLANTERS' ASSOCIATION.
MYSORE PLANTERS' ASSOCIATION.
NELLIAMPATHY PLANTERS' ASSOCIATION.
NILGIRI PLANTERS' ASSOCIATION.
NILGIRI-WYNAAD PLANTERS' ASSOCIATION.
SHEVAROY PLANTERS' ASSOCIATION.
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Executive 1933-1934.

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COFFEE	MAJ. J. S. H. MORGAN	" L. GARRETT.
RUBBER	MR. ERIC HALL	" H. J. WALMESLEY.

Planting Member.—MR. W. K. M. LANGLEY, M.L.C.*Secretary.*—LT.-COL. C. H. BROCK, O.B.E., V.D.*Asst. Secretary.*—LT.-COMDR. E. L. HILL, R. N. (*Retired.*)*Registered Office.*—Parry's Buildings, North Beach Road, Madras.

HEAD OFFICE:—MERCANTILE BANK BUILDINGS.

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Representative on the Indian Tea Cess Committee:

MR. J. S. B. WALLACE.

Representatives on the Legislative Council,
Fort St. George, Madras:

1893-1896	..	THE HON'BLE MR. G. ROMILLY.
1896-1900	..	" " " H. P. HODGSON.
1900-1904	..	" " " G. L. ACWORTH.
1904-1908	..	" " " H. P. HODGSON.
1908-1909	..	" " " C. E. ABBOTT.
1909-1912	..	" " " J. G. HAMILTON.
1912-1919	..	" " " SIR FAIRLESS BARBER.
1919-1922	..	MR. J. A. RICHARDSON, M.L.C.
1922-1925	..	" C. R. T. CONGREVE, M.L.C.
1925-1926	..	CAPT. E. G. WINDLE, M.L.C.
1926-1929	..	MR. C. R. T. CONGREVE, M.L.C.
1929-1930	..	" F. E. JAMES, M.L.C.
1931	..	" H. WADDINGTON, M.L.C.
1931-1932	..	" F. E. JAMES, M.L.C.
1932	..	" W. K. M. LANGLEY, M.L.C.

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1895-1896	..	" W. H. SPROTT.
1896-1897	..	" G. L. ACWORTH.
1897-1899	..	" GEO. ROMILLY.
1899-1900	..	" W. H. SPROTT.
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1908-1909	..	" J. G. HAMILTON.
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1925-1927	..	" R. FOWKE.
1927-1928	..	" A. C. COTTON.
1928-1929	..	" R. LESCHER.
1929-1930	..	" W. A. J. MILNER.
1930-1932	..	" C. R. T. CONGREVE.
1932	..	" R. FOWKE.

PROCEEDINGS
OF THE
FORTIETH ANNUAL GENERAL MEETING
OF THE
UNITED PLANTERS' ASSOCIATION
OF
SOUTHERN INDIA
(INCORPORATED)

The Fortieth Annual General Meeting of the United Planters' Association of Southern India (Incorporated) opened at 2-30 p.m., on Monday, the 14th August 1933, at the Mayo Hall, Bangalore.

The following were present:—

MR. R. FOWKE	..	<i>Chairman.</i>
MR. C. R. T. CONGREVE	..	<i>Ex-Chairman.</i>
MR. W. K. M. LANGLEY, M.L.C.	..	<i>Planting Member.</i>
MR. J. S. B. WALLACE	..	} <i>Members of the Executive Committee.</i>
MR. L. NEWCOME	..	
MR. ERIC HALL	..	
MR. F. E. JAMES, O.B.E., M.L.A.	..	
DR. W. S. SHAW, PH.D., M.S.C.,	}	<i>Tea Scientific Officer.</i>
F.I.C.		
MR. K. B. W. JONES, A.R.C.S.C., B.Sc.,	}	<i>Assistant Tea Scientific Officer.</i>
A.I.C.		
LT.-COL. C. H. BROCK, O.B.E., V.D.,	..	} <i>Secretary, U.P.A.S.I. & Director, Labour Dept.</i>
LT.-COMDR. E. L. HILL	..	
Messrs. The Anupura Coffee Works Co. Ltd.	..	<i>Assistant Secretary.</i>
.. Bayly & Brock Ltd.	..	.. MR. C. R. T. CONGREVE.
.. Burmah-Shell Oil Storage & Distributing Co. of India Ltd.	..	.. LT.-COL. C. H. BROCK.
.. The English & Scottish Joint Co-operative Wholesale Society Ltd.	..	.. MESSRS. P. M. STONE & I. A. T. SHANNON.
.. Harrisons & Crosfield Ltd.	..	.. " R. FOWKE AND J. C. BLACKHAM.
.. Marshall Sons & Co. Ltd.	..	.. MR. A. M. ROSS.
.. Overseas Potash Export Co. Ltd.	..	.. MESSRS. H. R. CORLETT AND A. D. LAWSON.
.. Parry & Co. Ltd.	..	.. DR. P. PIEKENBROCK.
.. Peirce, Leslie & Co. Ltd.	..	.. MR. S. G. H. DAVIES.
.. Shaw Wallace & Co. Ltd.	..	.. MESSRS. W. K. M. LANGLEY AND W. B. JACKSON.
.. Tea Estates India Ltd.	..	.. MR. J. E. WATERFIELD.
		.. MR. W. H. MILLAR.

and the following representatives of Associations:—

<i>Anamallais</i>	..	Mr. J. C. BLACKHAM.
<i>C. Travancore</i>	.. {	MESSRS. W. A. J. MILNER AND C. J. MADDEN.
<i>Coorg</i>	.. {	„ P. G. TIPPING & J. S. H. MORGAN,
<i>Kanan Devans</i>	.. {	„ J. S. B. WALLACE & E. N. PINKS.
<i>Mundakayam</i>	..	Mr. W. A. J. MILNER
<i>Mysore</i>	.. {	MESSRS. L. GARRETT AND E. W. FOWKE.
<i>Nelliampathies</i>	..	Mr. J. S. B. WALLACE
<i>Nilgiris</i>	..	Mr. A. K. WELD DOWNING.
<i>Nilgiri-Wynaad</i>	.. {	MESSRS. R. N. W. JODRELL AND R. M. GREIG.
<i>Shevaroy</i>	.. {	„ E. H. A. TRAVERS DRAPES AND P. V. BRISCOE.
<i>S. Travancore</i>	..	Mr. ERIC HALL.
<i>West Coast</i>	..	Mr. A. M. ROSS
<i>Wynaad</i>	.. {	MESSRS. T. E. HOWE & C. E. A. EWART.

VISITORS.

The Hon'ble Lt.-Col. C. T. C. Plowden, C.I.E., Resident in Mysore and Chief Commissioner of Coorg.

Dewan Bahadur M. N. Krishna Rau, Avl., B.A., Offg. Dewan of Mysore.

G. H. Cooke, Esq., M.C., I.C.S., Collector and District Magistrate, Civil and Military Station, Bangalore.

S. Krishna Iyer, Esq., B.A., B.L., President of the Indian Planters' Association, Travancore.

Dr. H. E. Watson of the Indian Institute of Science, Hebbal, Bangalore.

Major G. Kirkbride, Secretary to the Resident in Mysore.

G. P. Richards, Esq., Personal Assistant to the Resident in Mysore.

W. M. Orton, Esq., Superintendent, Indian Tea Cess Committee.

Mr. W. K. Aitken.	Mr. S. A. N. Iyer.	Mr. R. O. Oliver.
Mr. F. Chapman.	Mr. W. B. Jackson.	Mr. H. A. Ragg.
Mr. G. E. V. Travers		Mr. W. E. Scott.
„ Drapes.	Mr. T. M. Lewis.	Mr. S. P. O. D.
Mr. H. H. English.	Mr. L. C. Oliver.	Tipping.
Mr. L. G. Gallaher.		

and the following ladies:—

Mrs. J. C. Blackham.	Mrs. L. Garrett.	Mrs. Randolph Morris.
Mrs. L. C. Coleman.	Mrs. Eric Hall.	Mrs. D. M. Oliver.
Mrs. Ralph Congreve.	Mrs. E. L. Hill.	Mrs. D. Pinks.
Mrs. E. H. A. Travers	Mrs. T. E. Howe.	
„ Drapes.	Mrs. R. N. W. Jodrell.	Mrs. Ragg.
Miss Fowke.	Mrs. K. B. W. Jones.	Mrs. P. G. Tipping.
Mrs. E. W. Fowke.	Mrs. T. M. Lewis.	Mrs. J. W. Tolson.
Mrs. R. Fowke.	Mrs. C. J. Madden.	Mrs. J. S. B. Wallace.
Mrs. L. G. Gallaher.	Mrs. W. A. J. Milner.	Mrs. Wynyard Wright.

First Day, Monday, 14th August, 1932, 2-30 p.m.

The Chairman:—Gentlemen, I have great pleasure in introducing to you the Hon'ble the Resident, Lieut.-Colonel C. T. C. Plowden, who has kindly consented to open the meeting. I will now ask him to declare the meeting open.

The Hon'ble the Resident:—I hereby declare this meeting open.

The Secretary then read the notice calling the meeting and also announced that he had received the following telegram from Sir Fairless Barber:—"Best wishes for a successful meeting. Trust the principle of United Association will be definitely upheld." Also a letter from Mrs. H. Waddington, who sent her best wishes for a successful meeting, as she knew her husband would have done had he been still living. He also read a letter from Dr. Leslie Coleman, Director of Agriculture, Mysore, stating that he regretted he could not be present that afternoon, but hoped to be there on Tuesday.

The Chairman:—Gentlemen, the first item of business on the agenda is the Executive Committee's Report. This Report has been circulated to all the members and I propose to take it as read.

EXECUTIVE COMMITTEE'S REPORT.

I. THE U. P. A. S. I.

1. **Membership.**—The number of District Planters' Associations, Members of the Association, remains unaltered at thirteen. Since the last Report was issued, Messrs. Spencer & Co., Ltd., have been elected members, and Messrs. Madura Co., Ltd., The Imperial Chemical Industries (India) Ltd., and The Chilean Nitrate Agricultural Service have resigned, and so the number of Firm Members now stands at 20.

2. **Acreage:**—In last year's report the acreage subscribing to the U.P.A.S.I. up to 31st March 1932 was given as a total of 219,830. Owing to considerable reduction in the acreages under Rubber, due to resignations, the area which subscribed to the U.P.A.S.I. for the year ending 31st March, 1933 was only 203,221 acres, as is shown in the following table:—

Acreage which subscribed to U.P.A.S.I. on 31st March 1933.

Associations.	Tea.	Rubber.	Coffee.	Cardamoms	Chin- quapin	Pepper.	Total.
Anamallais ...	24,550	...	2,107	2,712	130	...	29,499
C. Travancore.	21,660	...	...	83	...	...	21,743
Coorg ...	415	...	14,020	45	...	...	14,480
Kanan Devans.	32,205	...	565	570	13	...	33,353
Mundakayam ...	1,662	9,086	...	...	...	...	10,748
Mysore ...	3,010	...	16,376	1,224	...	...	20,610
Nelliampathy ...	647	198	2,317	557	1	...	3,720
Nilgiris ...	9,962	...	2,290	...	...	...	12,252
Nilgiri-Wynaad.	12,368	...	3,713	...	...	...	16,081
Shevaroyes ...	...	...	4,593	...	...	...	4,593
S. Travancore...	6,636	12,219	...	...	...	...	18,855
West Coast ...	...	7,276	...	...	...	...	7,276
Wynaad ...	9,767	...	170	...	...	74	10,011
Total ...	122,882	28,779*	46,151	5,191	144	74	203,221

* Out of 28,779 acres Rubber supporting the Association, 22,404 acres were declared abandoned. Subscription was therefore received only from 6,315 acres.

3. **Articles of Association:**—In accordance with the special resolutions passed at the Extraordinary General Meeting held in Madras on the 17th May 1933, and subsequently confirmed at another Extraordinary General Meeting held in Madras on the 14th June 1933, the Articles of Association will have to be amended as follows:—

(a) That a new Article 5 (d) be added as follows:—

‘All questions concerning any particular product alone should be voted on only by representatives of a District Association which is entitled to votes in respect of that product and the Executive Committee shall decide which subjects concern only one particular product.’

(b) In Article 13 (b) after the words ‘present and voting’, add the words ‘subject to and in accordance with the provisions of Article 5 (d)’.

(c) In Article 5 (a) after the words ‘which they represent’ and before the words ‘The expressions’ add the following words:—

‘A District Association shall be entitled to use some of its votes in favour of and some of its votes against any particular resolution.’

(d) Add the following Article as 45 (a):—

“When it is proposed to pass a special resolution, the two meetings may be convened by one and the same notice, and it is to be no objection to such notice that it only convenes the second meeting contingently on the resolution being passed by the requisite majority at the first meeting.”

4. **Executive Committee:**—During the year there has been one change in the Executive Committee personnel, the Member for Rubber, Mr. H. J. Walmsley being succeeded by Mr. Eric Hall, when the former proceeded on home leave in April 1933. Mr. G. McPherson was co-opted as member-in-waiting for Rubber.

5. **Meetings:**—During the year there have been two meetings of the General Committee, five meetings of the Executive Committee and three Extraordinary General Meetings.

6. **Staff:**—Lt. Col. C. H. Brock handed over the Secretaryship of the U.P.A.S.I. as from the 4th October 1932 to Lt. Comdr. E. L. Hill, who continued to act as Secretary until Col. Brock's return on the 3rd July 1933.

Mr. A. H. Mackie was appointed Director of the Labour Department during Col. Brock's absence and arrived in Madras in September 1932 and acted in that capacity until Col. Brock's return in July 1933.

With regard to the resolutions passed by the General Committee at their meeting in Coimbatore on the 29th March 1933 whereby the Labour Department would, in future, consist of three Divisions only as compared with six as at present, the Executive Committee

reluctantly decided that the services of Major A. G. A. Dunning and Messrs. J. Grundy and S. O. Boyd should be terminated, the former two as from the 1st October and the latter as from the 1st July.

As a result of these dismissals, the Labour Department will, in future, consist of three Divisions at Coimbatore, Mysore and Srivilliputtur, controlled by Messrs. E. F. H. Gerrard, F. W. Winterbotham and C. E. Ricketts, respectively. Mr. A. H. Macfie on relief by Col. Brock proceeded on six months' furlough in July 1933.

7. **Accounts:**—The Budget for 1932-33 allowed for an expenditure of Rs. 3,78,045 and an estimated income of Rs. 3,24,583, so it was resolved to meet the balance of expenditure over income by withdrawing from the Reserves of the products concerned wherever necessary. The following statement shows the variations between the original budget and the actual expenditure and income under the main headings.

The excess of expenditure in the Budget under Head Office is due to unforeseen increases under the following heads.

Meetings	Rs. 2,000	approximately.
Depreciation on Investments ..	840	
Postages and Telegrams	300	
War Memorial	300	

EXPENDITURE

	Revised Budget for 1932-33.	Expenditure.	Underspent.	Excess.
	Rs.	Rs.	Rs.	Rs.
U.P.A.S.I. Head Office	38,769	42,480	...	3,711
Political Department	12,000	12,000	...	...
Labour Department	2,45,360	2,40,844	4,516	...
Tea Scientific Department	58,050	55,457	2,593	...
Coffee do. do.	15,750	15,057	693	...
Rubber do. do.	8,116	7,842	274	...
Excess Income over Expenditure	2,607	1,483	1,124	...
Total	3,80,652	3,75,163	9,200	3,711

INCOME

	Revised Budget for 1932-33.	Income for 1932-33.	Shortage.	Excess.
	Rs.	Rs.	Rs.	Rs.
SubscriptionsOffice Subscriptions,	1,01,548	1,03,113	...	1,565
Interest	...	7,500	10,423	2,923
Sundries	...	3,000	2,427	573
Labour Department	...	1,77,699	1,78,750	1,051
Tea Scientific Department	...	17,511	17,872	361
Coffee do. do.	...	10,663	10,651	12
Rubber do. do.	...	6,662	6,562	100
From accumulated Funds and Department Balances	...	56,069	45,365	10,704
Total	...	3,80,652	3,75,163	5,900

8. **Work at the Head Office:**—The number of letters received during the year was 6,456 and the number despatched 11,607. These figures do not include any correspondence connected with the *Planters' Chronicle*. The large number of letters despatched is partly accounted for by the increased work entailed in connection with the Regulation of Tea Exports Scheme.

9. **Provident Funds.**—At the close of the year, the number of members in the European Fund was 12 and the total of the Fund amounted to Rs. 1,70,161-5-7. In the Indian Fund there were 129 members and the total of the Fund on the 31st March 1933 was Rs. 49,323-6-10.

The Planting Member interviewed the Inland Board of Revenue on the subject of Income-tax on Provident Fund Contributions and reports that, although they consider the question requires legislation they are not prepared to amend the existing Act at present. In their opinion employees who do not qualify to receive their employers' contribution to the Provident Fund are in a minority as are also employees who are placed in a higher category for taxation purposes owing to calculation of the Employers' contribution to the Provident Fund. Mr. James stated he was not satisfied with this ruling and obtained permission to raise the question again later in the year.

10. **The Planters' Chronicle.**—Lt.-Comdr. E. L. Hill continued to edit and manage the paper during the year, in addition to his duties as Secretary during Col. Broek's absence on furlough for nine months. The year's working after deducting over Rs. 600 per month for Editor's salary, clerk's pay, depreciation, etc., shows a net surplus of income over expenditure of Rs. 629-11-4. A separate report on the working of this paper is being issued for the information of members.

11. **South Indian Planters' Benevolent Fund.**—The amount collected this year was considerably less than that received last year. Rs. 10,000 was received in 1931-32 as compared with Rs. 6,591 received this year. There was also a falling off in the number of personal subscriptions and Estates as compared with last year. The income by interest this year was better than in the previous year as Rs. 6,090 was received against Rs. 4,795 during 1931-32; this was mainly due to investments having been made in Government Securities yielding a better rate of interest than the Fund was obtaining from investments in Fixed Deposits. During the current year though 17 cases were helped as against 14 in the previous year, the amount distributed was Rs. 1,500 less than that distributed in 1931-32. The total of the Fund as at 31st March 1933 was Rs. 1,28,589-12-10 or an increase of Rs. 7,791-3-7 over last year which, however, is mainly due to the appreciation in value of Government Bonds valued as at 31st March 1933, i.e., Rs. 4,442-7-1.

12. **U.P.A.S.I. Buying Agency.**—This Agency continues to be popular in spite of many Rubber planters having resigned. There were 305 subscribers at the end of the year, as compared with 335 in the previous year. The excess of income over expenditure amounting to Rs. 706-11-8 was, as usual, transferred to the credit of the Southern India Planters' Benevolent Fund.

At a meeting of the Executive Committee, held on the 28th March 1933 in Coimbatore, it was decided that persons who are neither personal members of any District Association nor who are working on estates which are non-subscribers to a District Association, are not eligible for membership of the Upasi Buying Agency.

The Committee were also of the opinion that Managers and/or Superintendents, who belong to non-subscribing estates belonging to Firm Members of the Association, are also not entitled to membership of the Buying Agency.

II. AFFILIATED ASSOCIATIONS

1. **The South Indian Association in London.**—We have continued to receive assistance on all matters in which the Association was concerned at home from this Association, and perhaps at no time in our history have we had to co-operate in such important questions as have been dealt with in the past year.

2. **The Rubber Growers' Association.**—The Rubber Advisory Committee of the United Planters' Association of Southern India has continued to act as the South Indian Branch of the Rubber Growers' Association. As from the 1st January 1933, the usual contribution paid by the Rubber Growers' Association, London, towards the Rubber Experimental Station of £200 per annum was discontinued.

3. **The Indian Tea Association.**—The U.P.A.S.I. and the Indian Tea Association have worked in close co-operation with each other on all matters which affect the Tea Industry in general and the visit of Mr. T. C. Crawford, the I.T.A. Chairman, to Madras in January 1933 did much to clear up various points at issue in connection with the Tea Regulation of Exports Scheme and other important matters.

4. **The Indian Tea Cess Committee.**—The Indian Tea Cess Advisory Committee appointed to work in conjunction with the Tea

Cess Superintendent for South India consisted of Messrs. J. S. B. Wallace, W. A. J. Milner and Eric Johnson and came into being in June 1932. Only two meetings were held during the year, one in August 1932 at Bangalore and the other in October 1932 at Coimbatore.

III. LEGISLATION.

1. **Planting Member.**—Mr. F. E. James, M.L.A., attended the Legislative Assembly Sessions in Delhi in November 1932 and February 1933, and was also at Simla for the Sessions in August and September. On May 27th, 1933 he left Bombay for England to give evidence before the Joint Parliamentary Select Committee on the White Paper and will return to India about the 12th August in time to attend the Annual Meeting of the U.P.A.S.I. in Bangalore. Mr. W. K. M. Langley was nominated to the Madras Legislative Council in Mr. F. E. James' place and attended their Sessions in October 1932 and January and March 1933.

2. **The Madras Motor Vehicles Taxation Act.**—The Advisory Committee of Local Boards has recommended the restoration of tolls in Municipalities for slow moving bullock carts and a Bill will very shortly be introduced into the Madras Legislative Council. Full details in connection with this Act and the progress made have been given in the various Secretary's Reports issued since the last Book of Proceedings was published.

3. **Workmen's Compensation Act (Amendment) Bill.**—This Bill reaches its final stage in Simla in August and Mr. F. E. James will then move an amendment regarding Extension to Plantations, Definition of Estates, and the extension of the definition of 'Dependents'. When the Select Committee on this Bill sat in February 1933, they considered the U.P.A.S.I. suggestions for deletion of the clause which seeks to include plantation labour under the Act and decided against them. The Planting objections to the Bill were put forward by the Planting Member in Simla during September 1932 and his speech was published in the *Planters' Chronicle*, dated 8th October 1932.

4. **Indian Railways (Amendment) Bill.**—This Bill seeks to amend the Indian Railways Act of 1890 in order to permit a railway company which is neither a State guaranteed Railway Company nor a State owned Company, to own and operate unconditionally road motor services for the carriage of traffic in areas served by their railway. In our reply to the Government of Madras setting out the views of this Association, we stated that there was no objection to the Bill in principle except that the power which it is proposed to give certain companies should be subject to certain conditions. If power is to be given to companies to operate and own road services, then it should be given to all companies, state managed, state guaranteed or private railways, and legislation should be both comprehensive and uniform. Furthermore, we consider that the Bill should await the result of the Government of India Enquiry into the question of co-ordination of road development with railways.

5. **Royal Commission on Labour—Besetting an Industrial Establishment for collecting debts.**—The views of this Association on the subject were that they fully concurred in the desirability of preventing the besetting of Industrial Establishments for the purpose of recovering debts at the time of payment of wages but pointed

out that restrictive legislation of the type proposed would have to be most carefully framed in order to preclude the possibility of evasion of just dues by the unscrupulous use of the protection afforded.

In the opinion of the Planting Member, Plantations would not be included under this heading but Tea factories would come under the Act as would also Mills, Railway Workshops, etc.

6. **Royal Commission on Labour—Recommendations regarding the adoption of a system of Weekly Payments in Factories.**—In the opinion of the Planting Member legislation in this connection will undoubtedly be extended ultimately to all labour, but the Government of India Bill will not touch the question of period of payment nor will it apply to plantations in the first instance but will be directed against the practice of imposing fines and against delays in the payment of wages. Government are anxious that this question should be dealt with by the Planting Industry itself without recourse to legislation which would only be introduced if absolutely necessary and in any case planting interests would be consulted before doing so. In our reply to the Secretary to the Government of Madras, Public Works and Labour Department, dated 16th May, the views of our Association were that, should plantations be included within the scope of the proposals, we would not oppose the periodic payment of wages instead of the present system, provided the period were not less than one month and sufficient notice was given to enable the interests concerned to make the necessary adjustments. The opinion of our Association was divided on the question as to whether regular payment of wages would decrease indebtedness or otherwise but was unanimous that any legislation that may be considered necessary, should be provincial and not All-India.

7. **Royal Commission on Labour—Recommendations regarding the exemption of salary and wages from attachment.**—The views of our Association on this subject were sent direct to the Government of India on the 11th April and our reply to their Questionnaire was as follows:—

(a) We consider it desirable to extend the complete protection of wages from attachment to other classes than those at present included in clause (1) of the proviso to Section 60 (1) of the Civil Procedure Code, namely, to any person drawing Rs. 100 per month or less. Furthermore for any person in receipt of Rs. 101–Rs. 300 per month, attachment of wages should be limited to 50 per cent.

(b) The power to secure continuous attachment of the salaries of public officers or railway servants should be limited to a specified percentage of the wage and to a specified period of time, e.g., twelve months.

(c) The present protection afforded to Co-operative Societies should continue.

(d) Any changes introduced should apply only to debts incurred after the changes are made.

IV. DUTIES AND TAXES.

1. **Income-tax on Labour Suppliers.**—The Income-tax Commissioner was approached with the suggestion (originally put forward by the Anamallai P. A.), that a flat rate of Rs. 2-8-0 per coolie

should be deducted from Labour Suppliers' Income, as recruiting expenses in assessing all labour suppliers for income-tax in this Presidency. The Commissioner of Income-tax in his reply, however, regretted that he could not bind Income-tax Officers to allow a fixed rate of expenditure in assessing all Labour Suppliers but promised to bring before the notice of the Income-tax Officers concerned, the fact that our Association has formed the conclusion that Rs. 2-8-0 per coolie is a fair rate of expenditure and will therefore instruct them to take this into consideration when making their estimates of the income of labour suppliers.

2. **British India Income-tax Claim of Tea Companies to deduct expenditure in supplying.**—Last year, acting on instructions of the Central Board of Revenue, Income-tax Commissioners suddenly insisted on disallowing Expenditure on Supplying as chargeable against Revenue. This matter was therefore taken up by the Planting Member and as a result of his representations to the Board in Delhi, a provisional amendment to Rule 25 of the Income-tax Act has been published which in effect allows Expenditure on Supplying against revenue except in the case of abandoned areas, and it is expected this Rule will become effective as from some date in June 1933.

The question as to whether refunds on payments made in connection with the first order of the Board in 1932 will be permissible was put before the Acting Commissioner of Income-tax who stated that normally refunds would not be allowed because the orders of the Board of Revenue are not retrospective but if ordered to do so by that body, he is quite willing to grant them. Mr. James has, therefore, written the Board of Revenue strongly urging that, under the circumstances, refunds should be paid in respect of the additional amounts collected during the past year as a result of the sudden disallowance of Supplying Expenditure against revenue.

3. **Import Duty on Copper Sulphate.**—The Imperial Council of Agricultural Research have promised to take up the question for a reduction of duty on this commodity, but point out that, though Government are anxious to assist, the difficulty is to devise a satisfactory administrative method of distinguishing between Copper Sulphate imported for agricultural purposes and Copper Sulphate imported for industrial purposes. Copper Sulphate now comes under ordinary tariff rates, as duties recently imposed on heavy chemicals have been discontinued, which give Copper Sulphate a duty of 20 per cent (U.K.) and 30 per cent (Foreign).

4. **Import Duty on Agricultural Machinery.**—No useful purpose can be served by making application for a reduction of duty until this matter comes before the Assembly. Under the terms of the Ottawa Agreement, it is clear that the 10 per cent preference on the import of machinery extends only to those articles which pay the ordinary revenue rate (25 per cent ad valorem) and not to those which are subject only to the temporary duty of 10 per cent; therefore at present the Ottawa Agreement will make no difference to these articles. The Planting Member in conjunction with the Indian Tea Association will be taking up this matter again in the Assembly.

5. **Drawback of Import Duty on Tea and Rubber Chests.**—Government having refused to grant a further extension of time in this connection, the next step taken by the Planting Member is

co-operation with the Indian Tea Association was to press for a remission of the surcharge on the import duties on this article as Government are determined to do away with the drawback altogether.

The amendment tabled by the Planting Member when a Bill was introduced at the last Session in Delhi in connection with the tariff alternations under the Ottawa Agreement, was not accepted by the Commerce Member but the latter replying to a subsequent Memorandum on the subject submitted by Mr. James, has promised to look fully into the question and hopes that he will be able to do something for the industry in South India which he realises is in a parlous state.

6. **Import Duty on Rubber Hose.**—The latest position with regard to this commodity is that the import duty on Rubber Hose imported from the United Kingdom only, has been reduced from 25 to 20 per cent as from 1st January, 1933.

V. COMMUNICATIONS.

1. **Roads—Kodlipet Saklasapur.**—With reference to the resolution passed at the last Annual Meeting, the attention of the Chief Engineer and Secretary to the Government of Mysore was drawn to the impassable condition of this road during the monsoon months and he was asked to take steps to have the road kept in thorough repair.

A reply was received in due course to the effect that this is a District Fund Road with an allotment of Rs. 150 per mile and without special grants it had not been found possible to maintain it in a better condition during monsoon months. An estimate however of approximately Rs. 3,000 has been sent to the President of the District Board for metalling some of the worst stretches and an allotment of funds for them would be allocated.

2. **Choladi Bridge Ootacamund.**—Strong representations were made to the Government of Madras that they should take over this trunk road from the Nilgiri District Board and that it should be placed under the control of the Public Works Department. The Planting Member in his report, however, stated that although it was unlikely that Government would agree to the transfer of this road to the P.W.D., they were considering an estimate of Rs. 7.60 lakhs for thorough improvements to be carried out. In view of a further resolution passed by the Nilgiri-Wynaad P.A., the Planting Member is again approaching Government and urging that this sum, if approved, should be placed at the disposal of the P.W.D. for carrying out the necessary repairs.

3. **Nelliampathy District Roads.**—Government are investigating the position and realise its unfairness but it is not easy to assist because in the ordinary course of events Government do not make grants direct to Areas, such grants having to go through District Boards.

VI. GENERAL.

1. **Food Adulteration Act.**—The Planting Member wrote to Government on this matter forwarding the resolution passed at the last Annual Meeting, and also discussed the whole question with the Director of Public Health. Government are contemplating a very wide extension of the Act and have expressed their gratitude for the offer of co-operation from the U.P.A.S.I.

2. **The Employers' Federation of India.**—Our resignation from the Employers' Federation of Southern India takes effect from the 31st December 1933, and in the meantime application has been made for direct membership of the newly formed Employers' Federation of India. On the basis of 150,000 labourers employed on estates, the U.P.A.S.I. will be entitled to 30 votes.

3. **The Late Mr. Fletcher Norton.**—A small sum remained over from the subscriptions collected, after the tombstone over Mr. Fletcher Norton's grave had been erected, and this was expended in having his photograph placed in the Bangalore United Service Club.

4. **Banks' Commission.**—The Eastern Exchange Banks' Association, London, advised through their Madras representatives in September 1932, that a charge of annas 12 per payment would be charged forthwith on each periodical payment made on account of their constituents. The Banks in question are:—

1. National Bank of India, Ltd.,
2. Chartered Bank of India, Australia and China,
3. Mercantile Bank of India, Ltd.,
4. Eastern Bank, Ltd.,
5. P. & O. Banking Corporation, Ltd.

5. **Visitors to U.P.A.S.I. Departments.**—A notice was published in the *Planters' Chronicle*, dated 8th October, 1932 calling attention to the fact that there is a good rest-house for visitors on the Balehonnur Coffee Experimental Station, and that all planters who wished to visit the Station should write either to the Director of Agriculture, Mysore, or to the Station Manager, Balehonnur, for permission to visit the Station and to occupy the Rest House.

The Executive Committee, U.P.A.S.I., further resolved that any planters or Members of the U.P.A.S.I. who visit any Scientific Station or Labour Department Headquarters and are billeted by a Scientific Officer or other European employee of the U.P.A.S.I. shall be charged Rs. 5 a day, which sum on recovery, shall be remitted to the employee who put the visitor up.

VII. TEA.

1. **South Indian Tea Crop, 1932.**—The following Statement shows the crops of Tea from each District during the year:—

			Lbs.
Anamallais .. ..	..	..	11,542,348
Nilgiris .. ..	..	..	6,744,426
Nilgiri-Wynaad .. ..	..	..	5,485,487
Wynaad and Malabar .. ..	..	..	6,278,152
Cochin .. ..	..	..	89,201
Coorg .. ..	..	..	279,767
Mysore .. ..	..	..	232,834
Central Travancore .. ..	..	..	11,981,150
Mundakayam .. ..	..	..	1,603,693
Kanan Devans .. ..	..	..	14,937,669
South Travancore .. ..	..	..	3,204,018
Total .. ..	..	..	62,378,745

2. **Consumption of Tea in Southern India.**—The figures received from the ports of the Presidency and Travancore show that, during 1932, the total exports were 54,726,917 lbs. which would leave a remainder when compared with figures of production of 7,591,828 lbs. consumed in this country. The following table gives the production and apparent local consumption for the past 12 years:—

	Production.	Local Consumption.
	Lbs.	Lbs.
1921	31,399,000	4,000,619
1922	36,231,287	6,713,366
1923	43,538,648	6,321,706
1924	46,161,408	8,207,006
1925	47,975,955	4,027,107
1926	51,065,004	6,662,284
1927	52,387,595	4,773,551
1928	55,760,603	7,113,469
1929	58,517,586	6,233,341
1930	53,802,044	6,364,635
1931	55,573,378	6,350,193
1932	62,318,745	7,591,828

These figures are necessarily only approximate and those collected from non-members of the Association are included above, and can in no way be regarded as complete.

3. **Imitation and Adulterated Teas.**—As a result of a meeting between Mr. R. K. Shanmukham Chetty, M.L.A., and the U.P.A.S.I. representatives consisting of Messrs. H. S. Cameron, Eric Johnson, A. W. F. Mills, and C. L. Greig, the Planting Member was requested to prepare a Memorandum setting out the main outlines of the position as it existed before 1928 up to the time of the above meeting in January 1933.

After consultation with Government, the Planting Member prepared a further report of progress made which was fully considered by the Executive Committee who decided that, in view of the fact that the Food Adulteration Act is being extended to 56 Municipalities in the Presidency and everything possible is being done by Government to strengthen the provisions of the Act and launch prosecutions when necessary, there would be no occasion for further meetings between Mr. R. K. Shanmukham Chetty and the U.P.A.S.I. representatives.

4. **Indian Tea Cess Committee Propaganda Work.**—The details of the basis of a new scheme for the supply of Standard Tea were framed by the Tea Cess Advisory Committee in conjunction with the Superintendent of the Indian Tea Cess Committee, Bangalore, and a notice inserted in the *Planters' Chronicle*, dated the 25th February, 1933 stating when tea was required and to what amount, in order that estates wishing to contribute might then get in touch with Mr. Orton, Superintendent of I.T.C.C., Bangalore, direct. A list of towns and villages in which propaganda work has been carried on or introduced during every six months is published in the Secretary's report and also in the *Planters' Chronicle*.

5. **Renewal of the Indian Tea Cess.**—A Notification from the Government of India, Department of Commerce, was issued on

the 21st January, 1933 to the effect that, on the recommendation of the Indian Tea Cess Committee, Sections 2 to 7 of the Indian Tea Cess Act, 1903 would continue in force until the 31st March, 1938.

With regard to the proposal for an enhanced levy of As. 8 per 100 lbs. instead of As. 6 unanimously recommended by the Committee of the Indian Tea Association and South Indian Association in London, all Rupee Companies and Private Proprietors were approached by the U.P.A.S.I. for their views on this subject. A referendum was also sent to all District Associations for their comments and as the majority of replies received were in favour of the increased cess, the I.T.A., Calcutta, and S.I.A. in London were advised accordingly and actual returns of figures received in response to the Reference were sent to them.

6. **Prices of Experimental Teas sold locally.**—The attention of the Secretary having been drawn to the practice of some dealers influencing the low prices at which experimental teas are bought by the production of authentic invoices of teas bought from a large concern at still lower rates, thus depressing prices, a notice was published in the Editorial of the *Planters' Chronicle*, dated 8th October, 1932 suggesting that invoices should be marked in such a way as to show they were abnormal ones when selling parcels of experimental teas.

7. **Tea Prices in London.**—In accordance with the instructions of the Executive Committee, the Secretary wrote the South Indian Association in London and asked them to ascertain if any action could be taken to ensure better prices for the tea producer. A reply was received to the effect that the price of tea was governed by supply and demand and that the low prices then prevailing (in October, 1932), realised by growers, were due to over-production. The S.I.A. in London added that, when the negotiations for restriction were concluded, they anticipated equilibrium between supply and demand would be restored.

8. **Tea Marking.**—The South Indian Association in London considered the resolution on this subject passed at the Annual Meeting and have approached the Indian Tea Association, London, and the Ceylon Association in London with a view to the formation of a special sub-committee of the three Associations to enquire into this matter. Before the sanction of the Board of Trade can be obtained for a further enquiry by them into the question, it is essential to satisfy them that fresh circumstances have arisen to justify re-opening the matter.

9. **Tea Regulation of Exports Scheme.**—After some months of negotiations between the Dutch and British tea producers, the final announcement on the 20th May, 1933 that the scheme for the control of tea exports had been generally accepted, came as good news to all those who are interested.

The position of growers toward the middle of 1932 became so acute that all interested in the industry were compelled to examine remedial measures from all points of view and in October last Dutch growers informed British growers that they were willing to co-operate in restricting crop under a compulsory scheme to be controlled by the respective Governments.

The Dutch proposals were most carefully examined and elaborated by British interests and practical unanimity was soon reached between the British and Dutch tea producers. The respective Governments passed the requisite ordinances to bring the agreed scheme into effect in May 1933, and for a period of 5 years shipments of tea will be restricted to meet the demand, and during this period also the extension of the planted area will be strictly controlled. The full terms of the control accepted by representatives of tea producers in Ceylon, Java, Sumatra and India were published in the *Planters' Chronicle*, dated the 3rd June 1933. The Government of India have left to the Industry itself, subject to the orders of the Government, the actual machinery for the issue of licenses. In Southern India the prescribed licensing authority is a Committee representative of the tea growing industry containing representatives both of British and Indian interests consisting of Messrs. C. R. T. Congreve, P. Kurien John, J. S. B. Wallace, H. S. Cameron, R. Fowke, H. B. Ari Gowder, M.L.C., and Dewan Babadur S. L. Mathias, K.S.G. The Licensing Committee will keep an account of all the quotas allotted and will record all the licenses granted. A Joint Controller has been appointed for this purpose, namely Mr. J. A. R. Lloyd of 'Glenview', Coonoor, to whom all applications for export licenses should be made and to whom all correspondence in connection with the scheme should be sent. It is hoped and expected that restriction will bring with it benefits other than an economic level of prices—in the first place it should improve the all round quality of tea with the result that the public will get better tea to drink and thus its popularity as a beverage will be increased.

Secondly it will tend to improve the health and vigour of tea plantations as the temptation to unduly force growth and crop will be removed.

VIII. COFFEE.

1. **Southern India Coffee Crop.**—From the Indian Coffee Statistics, issued by the Director General of Commercial Intelligence and Statistics, Calcutta, who compiles his figures for the period 1st July to 30th June (it is noted that the crop for the year 1931-32 is not yet to hand), the following Statement gives the figures for the last 12 years:—

				Lbs.
1919-1920	..	..	..	21,325,035
1920-1921	..	..	..	22,453,659
1921-1922	..	..	..	20,487,926
1922-1923	..	..	..	25,459,428
1923-1924	..	..	..	10,145,403
1924-1925	..	..	..	30,457,644
1925-1926	..	..	..	22,106,717
1926-1927	..	..	..	34,281,995
1927-1928	..	..	..	35,563,321
1928-1929	..	..	..	27,758,633
1929-1930	..	..	..	39,423,908
1930-1931	..	..	..	32,972,967

2. **Consumption in India.**—As mentioned above the production Year of Coffee is reckoned from the 1st July to 30th June, and the account of exports given in the Annual Statement of the Sea-borne

Trade and Navigation of the Madras Presidency is for the official year 1st April-31st March. It is difficult, therefore, to make an exact comparison, but the total production for the last five years ending with 1930-31 exceeds the amount shipped by 4,170 tons per annum.

3. **Coffee Cess.**—Legislation would be required before the Government of India would form and control a Coffee cess for the purpose of advertising Indian Empire Coffee in India and abroad and before it could be introduced, a scheme would have to be put forward, agreed to by 75 per cent of the planted area in Coffee. The U.P.A.S.I. is the body to put up the completed scheme to the Imperial Council of Agricultural Research and the Planting Member has affirmed it would receive very sympathetic consideration. The Secretary of the Coffee Growers' Association, however, intimated in November, 1923 that further action was inopportune as it was impossible at that time to canvass 75 per cent of the planted Coffee Area.

4. **British Import Duty on Coffee.**—The Agreement made between the United Kingdom and India as the outcome of the Ottawa Conference, resulted in a margin of preference being given to Coffee of 9½d. per cwt. compared with the previous preference of 2½d. per cwt. As Coffee interests were not entirely satisfied with this margin, the South Indian Association in London were again approached by the Secretary, U.P.A.S.I. and asked to press for an equal preference to be given to Coffee as for Tea. The S.I.A., however, replied that the Special Sub-Committee appointed by them to investigate this question, had reported that, in view of the increased preference granted, they did not propose to take any further action, as the 1d. per lb. preference was the same figure indicated in the Resolution passed at the Annual Meeting.

The subject has since been re-opened by the Government of India, Commerce Department, who, writing on the 1st May, 1933, point out that trade in the United Kingdom in Coffee should be actively developed, otherwise other parts of the Empire are likely to benefit more by the preference granted than India. They state they would welcome any information from the U.P.A.S.I. with regard to organisations, which would be useful for the propaganda of Indian Coffee in the U.K., and ask for various Statistics of consumption in and export of Coffee from India.

All District Associations, Coffee Curing Firms, etc., have been circulated for their views and suggestions on the Government of India letter and a Special Meeting of all Coffee interests will be called in August at the time of the Annual Meeting to consider this question, when a full reply will be formulated and sent to the Government of India.

5. **Coffee Prohibition of Import into India.**—Certain Coffee Curing Firms on the West Coast having enquired about the alleged import of a large quantity of Java Coffee into Bombay, via Colombo and Bhavnagar, the Secretary, U.P.A.S.I., approached the Collector of Customs, Bombay, on the subject, who, however, in his reply confirmed that there have been no imports of coffee, other than roasted and ground, from Java and other foreign countries since June 1931. The Land Frontier Customs, administered by the Salt Department, did, however, allow one consignment of 20 bags, value

Rs. 2,000 to pass through Bhavnagar at Dhaodhuka Land Customs, and enquiries were instituted to ascertain why the Bhavnagar Authorities permitted Coffee to be landed in that State. Strict orders were consequently issued to Land Frontier Customs not to allow any raw coffee importation in future.

IX. RUBBER.

1. **Production in Southern India.**—From figures supplied to the Association from the ports of shipments, the following statement shows the export of Rubber from South India from 1923-1932.—

					Lbs.
1923	..	..	..	..	8,411,018
1924	..	..	..	..	10,151,636
1925	..	..	..	..	13,950,915
1926	..	..	..	..	14,628,915
1927	..	..	..	..	16,042,831
1928	..	..	..	..	16,823,761
1929	..	..	..	..	17,222,790
1930	..	..	..	..	15,595,518
1931	..	..	..	..	10,922,602
1932	..	..	..	..	2,535,145

The large decrease in the shipment figures is accounted for by the closing down of many of the Rubber Estates of Southern India during the year owing to the slump in prices. The production Statement compiled by the Director-General of Commercial Intelligence and Statistics gives the production in respect to South India as follows:—

	Production as per Indian Rubber Statistics. Lbs.	Shipment of Rubber from South India. Lbs.
1927	14,682,264	16,042,831
1928	15,946,913	16,823,761
1929	16,852,657	17,222,790
1930	14,392,301	15,595,518
1931	11,670,715	10,922,602

2. **Remission of Rubber Assessment.**—The Planting Member again approached the Government of Madras on this subject and interviewed the Revenue Member and Revenue Secretary in Ootacamund in May 1933. The Revenue Member received him sympathetically but it is unlikely that the assessments will be reduced as they are already low compared with those in neighbouring States. The question of a postponement of collection is, however, under active consideration and the Planting Member in a long Memorandum on the subject has supplied certain information called for and has also made a very strong request that some relief should be granted before the Annual Meeting in Bangalore.

The Cochin Government have allowed the reduced assessment and postponement of re-survey collections to remain in force for another year and an expression of this Association's deep gratitude and appreciation for the relief given to Rubber Estates in Cochin, has been forwarded.

X. SCIENTIFIC DEPARTMENTS.

Tea.

1. **Staff.**—Dr. W. S. Shaw, Tea Scientific Officer, returned from six months' leave in November, 1932 and took over charge of the Tea Experimental Station on the 6th November from Mr. K. B. W. Jones, who had been acting in his absence.

2. **Tea Scientific Department Sub-Committee.**—During the period under review, three meetings of this Committee were held, one in September 1932, one in November 1932 and one in March 1933.

3. **Work at the Tea Experimental Station.**—The Scientific Officer is reporting fully on the work of the Station in his Administration Report for the year.

4. **Scientific Department of the Indian Tea Association.**—In view of the enforced cutting down of all expenses and in accordance with the resolution passed at the General Committee Meeting in March 1933, the Secretary, U.P.A.S.I., approached the Indian Tea Association, Calcutta, and asked if they would be agreeable to accepting our resignation as from 1st April 1933 so far as concerns our affiliation with Tocklai—this they very kindly consented to do.

Coffee.

Staff.—Mr. W. W. Mayne proceeded on six months' home leave on 10th April, 1933 and in his absence the Assistant Coffee Scientific Officer, Mr. V. K. Subramanyam, will continue to work under the direction of Dr. Leslie C. Coleman, Director of Agriculture, Mysore, at the Mysore Government Coffee Experimental Station, Balchonnur. He will also remain in charge of the Station at Sidapur.

Mr. Mayne visited South Coorg during the first fortnight in February 1933.

Rubber.

Staff.—Mr. R. A. Taylor resigned as from the 13th September, 1932 and before relinquishing his appointment as Rubber Scientific Officer gave his suggestions as to the best means of carrying on the Station on a care and maintenance basis.

Mr. H. B. Macpherson continued to act as Supervisor of the Rubber Station from that date and notices have been given to the Indian Staff whose services are now no longer required.

MADRAS,
4th July, 1933.

R. FOWKE
ERIC HALL.
C. R. T. CONGREVE.
L. NEWCOME
J. S. B. WALLACE

THE CHAIRMAN'S ADDRESS.

The Chairman then delivered the following Address:—

GENTLEMEN,

It is my privilege to welcome you to the 40th Annual Meeting of this Association. I must preface my remarks by stating, that, much as I should like to give you a short address, the many outstanding events, and important matters under contemplation necessitate my addressing you at greater length than I first intended.

Reviewing the World conditions for the year 1932-33 the difficulties which all countries have gone through in balancing their budgets and in meeting outside liabilities, is unparalleled in the World's history. The most encouraging feature apparent, was the combined gigantic effort of all industries, represented by the Governments of the various Nations to find some solution of the economic problem.

The World Economic Conference was the outcome of this, at which Delegates representing practically every Nation were gathered. The Conference from which so much was expected, suffered its first setback on the momentous question of the stabilisation of currency. Although little can be said to have been accomplished, it is possible that the way has been paved for future negotiations between countries, and that ultimately some agreement may be arrived at, which will overcome the existing obstacles to prosperity.

At the Ottawa Conference that sat in 1932, certain reciprocal tariff adjustments affecting trade relations between India and other countries within the Empire including the United Kingdom, were agreed upon; and as far as they concerned India were duly ratified by the Legislative Assembly. Our hopes that the preferences given to India, would largely eliminate foreign grown tea and coffee on the London market were, however, not fulfilled.

This leads me on to the Restriction of Tea Exports Scheme which has recently come into operation. The scheme is the most important attempt that has been ever evolved on the part of Tea Producers to rectify the calamitous position into which the industry had fallen. It will, I feel convinced, also ensure the distribution of an improved tea to the consumer, who of recent years has been gradually educated to drink an inferior quality of tea.

The Scheme was most carefully drawn up, and our thanks are due to Mr. Graham, Chairman of the Indian Tea Association, London and Mr. Crawford, Chairman of the Indian Tea Association, Calcutta for bringing it to such a successful conclusion. To Mr. Crawford and Mr. James I must express our gratitude for the negotiations they so ably completed with the Government of India.

The prohibition of exports, except under license, is now in operation, and a Bill will be moved at the Assembly in September implementing the connected conditions of the Scheme. We trust, with the strong Indian support that has hitherto been accorded to the Scheme, that the Bill will have a smooth passage.

The proposed Scheme for Restriction of Tea Production is a necessary adjunct of the Export Scheme, if we are to protect the industry from a glutted market in India, as was the case in London prior to the introduction of the Restriction of the Export Scheme. It is a necessary

corollary to the ultimate success of the former Scheme and I hope those who have hesitated hitherto to accept the latter Scheme, will now do so unhesitatingly.

From the Newspapers it is apparent that there is a small section of our community opposed to both Schemes. It is obvious that in most instances, those writing have not read the Schemes carefully or have failed to understand them. I would impress upon those of you, who feel they are suffering special disadvantages under the application of these Schemes, that in legislating for such an enormous and wide-spread industry, it is impossible to meet the particular requirements of each individual or even of each District. It is my opinion that opposition to the Restriction of Production Scheme may jeopardise the future of the Tea Industry and the beneficial results already being experienced may be neutralized.

With regard to Coffee, this Product has suffered during the past year but in no sense as badly as tea and rubber. Those of us who are Coffee Planters should do our utmost to keep abreast of the times, and by propaganda work both out here and in Europe should endeavour to combat the South American menace which is contracting our markets. The preferential tariffs agreed to, in Ottawa, should do something towards assisting the Coffee industry but every effort should be made through the Government of India to increase these tariffs. The Restriction of Coffee Production proposed at the World Economic Conference is a move in the right direction.

The Rubber Industry has been the worst sufferer among the Products represented by our Association, but recently however the market price has taken a considerable turn for the better. The responsibility for this, is no doubt due to the decrease in stocks, during the past year. The introduction of a Scheme for the Restriction of the Exports of Rubber, on somewhat the same lines as the Restriction of Tea Exports Scheme, has been mooted more than once recently, and if the difficulties attached to the proposal can be overcome the Rubber growing industry would be re-established.

He would indeed be a bold man who would be prepared to make any prophecy as to the future, but there are indications of the clouds lifting on the financial horizon, and signs of a World trade revival which would reflect on our Products and justify one in taking a more optimistic outlook on the future than has been possible for some considerable time.

With regard to our Political Representation: Mr. James has since July 1932 been a member of the Legislative Assembly. It is clear that as far as Planting interests are concerned his work in the Assembly has been of great importance, and will be of increasing importance in the future. Matters affecting the interests of all the Products represented in U. P. A. S. I. are at present being dealt with either by the Government of India, or by the Legislative Assembly, and I have only to refer to Mr. James' activities in connection with the importation of Coffee, the import duty on Copper Sulphate, the drawback on Tea Chests, the Tea Regulation Scheme, questions of income-tax payable on supplying, to show that his presence in the Assembly is a definite benefit to all Estates whether in British India or Indian States. At the same time it must be admitted that the Planting Interests of British India require efficient and regular representation in the Madras Legislative Council.

We are fortunate that Mr. W. K. M. Langley has been able to take Mr. James' place as Planting member during this time, and it must be a source of great gratification to all of us to know that he is prepared at any rate for the present, to continue to serve U. P. A. S. I. in that capacity. Mr. Langley has made a distinct place for himself in the local Legislature and on your behalf I tender to him our sincere thanks. (Applause). We are sure that his influence both with the Government and with his fellow legislators will be of great importance to the Association. I can only hope that in the constitutional changes which are likely to take place, the Association may be assured, without any additional cost of the continued representation by Mr. James of its interests in the Legislative Assembly, and also of the continuance of regular and sufficient representation in the Local Legislative Council. As Federation approaches there is no doubt that the interests of Europeans generally will have to be watched equally closely in the Provincial and State Legislatures and in the Federal Legislature. Therefore in building up our political organisation this must be our aim, and it is satisfactory to know that negotiations are already proceeding with the wider interests concerned, to ensure that every effort will be made to secure effective representation on all fronts.

The Association has noted with great interest the proposals of His Majesty's Government for the future constitutional development of India, which have been published in the White Paper. The Joint Committee of both Houses of Parliament together with certain Indian Representatives, has been sitting; and at the urgent request of the All India Council of the European Association, the Executive Committee of U. P. A. S. I. agreed to loan the services of Mr. James to prepare the Memorandum of the European Association throughout India for the Joint Select Committee; and also for him to appear before that Committee to give evidence upon the Memorandum. As has already been stated in the "*Planters' Chronicle*," a decision of this question had to be taken within a very short time. We agreed, however, to the loan of Mr. James for this important work provided it would entail no cost to the Association, and also provided he could return to India in time to attend this Meeting. Both these conditions were agreed to, and I think the Association may congratulate itself that its own political representative was chosen as the chief witness on behalf of Europeans throughout India.

It is not my intention to talk on the proceedings of the Joint Select Committee as Mr. James has only just returned from giving evidence in London and will give you his impression at first hand.

We Planters have a definite stake in the Country, the best interests of India are our interests, and as agriculturists our future is closely allied with the agricultural interests of the country, which amount to over 85 per cent. of the population of India.

The 40 years' history of the U. P. A. S. I. of which we are justly proud, and the status the Association has acquired, shows what solid results can be achieved by the unity and combination of common interests.

With the impending constitutional changes in India it is vitally necessary that this unity should be maintained unimpaired and any deviation from this principle on territorial or other grounds will dissipate our strength and lead to disruption of U. P. A. S. I.

At our General Committee Meeting last March important decisions were made. As a result of the recommendations of the Re-organisation Committee which commenced its sittings last September, the rates of subscription were reduced in an attempt to meet the ever insistent call of economy.

The reduction of subscription entailed a heavy loss to the Labour Department, in the form of a reduced grant from the U. P. A. S. I. This involved a consequent increase of subscription from Labour Department subscribers at a time when they could ill afford to pay more, and the only way of meeting the situation was to amalgamate Divisions and dispense with some of the staff, both European and Indian. It was with great reluctance that this decision was arrived at, and we much regretted losing the services of men who had in some cases been with us for a period of years.

Whether the Re-organisation of the Department has reduced efficiency or not, I am not in a position to say, but I have heard no complaints from subscribers; on the contrary, I have heard from some quarters there is a definite improvement. When times are better, or should the necessity arise, it will be easy for us to again extend, and in the mean time subscribers are saving in the form of reduced subscription.

The Re-organisation Committee suggested certain alterations in the Articles of Association, which have been adopted and I would particularly draw your attention to new Article 5 (d), and the addition to Article 5 (a). These alterations have been passed in conformity with the law, and there is the possibility of them being exercised at this Meeting.

While on the subject of Re-organisation I would remind you that at the General Committee Meeting held in March at Coimbatore another Committee was formed. This Committee operates both in India and England and part of it is at present sitting in England, together with representatives of the South Indian Association. The feeling at the Coimbatore Meeting was, that endeavour should be made to discover means to improve business relationship, and to avoid overlapping of work, between the South Indian Association and the U. P. A. S. I. The Committee in India have forwarded their suggestions to the London Committee and now await their reply. As the matter is more or less sub judice I would suggest that the whole question of Re-organisation be held in abeyance until we hear the result of the London Committee's deliberations.

A matter under consideration, by your Executive Committee, is the desirability of transferring our Head Quarters from Madras to a centre in the planting Districts.

When we transferred to Madras, it was argued that we should be located in the Presidency Town, which is the seat of Government and the centre of commercial activity. It was considered essential that our Secretary should be in close touch with the various Government Departments, and assist our Planting Member, in his work on the Council.

With the engagement of Mr. James as our paid Political Representative this necessity no longer arises, as the majority of the work connected with Government devolves on his shoulders. The position has further been altered by the fact that your Secretary now combines the duties

of Director of the Labour Department, with his Secretarial work, and as you know his circles lie a considerable distance from Madras.

If the Offices were transferred to a planting District the choice from accessibility and easiness of accommodation, would fall on the Nilgiris. The change of location would speed up work, and the Secretary would be in closer touch with the members of his Committee. The cost of attending Meetings would be lessened, and it would tend to facilitate closer co-operation between the Office and planting Districts, and the labour Divisions.

You will immediately ask whether the cost of the change in location will be less than continuance of the Office in Madras. I can give you a definite assurance that it will be considerably less although in the first year of the change there would be little if any saving. The matter will come up later in the Meeting when details will be placed before you. I have merely touched on the subject to prepare you for the discussion that will arise.

Turning to Scientific matters the Tea Experimental station has continued to do excellent work under the able administration of Dr. Shaw assisted by Mr. Jones. It is gratifying to be able to remark that for the first time in the history of this Department, active research is being undertaken in all branches, Entomologic, Mycologic, and Chemical. The Entomologist has thrown considerable light upon the Tortrix question, and is now investigating the biologic control of Helopeltis. The Mycologist's attention is being given to Pink Disease and Root Rots, and soil disinfectants are under investigation. Chemically, the year has evidenced considerable progress and it is not too much to add that our knowledge in this direction is second to that of no other Scientific Department working on Tea. The concentration of an Officer on Tea Manufacture problems will meet with the approval of all Tea Planters.

The Coffee Scientific station with Mr. Mayne in charge and under the direction of Dr. Leslie Coleman, Director of Agriculture, Mysore continues its excellent work.

The study of spraying Coffee using different fungicides and adhesives together with the question of the most suitable strength of fungicide and the best times for spraying, is under close investigation.

The value of spraying appears to be thoroughly recognised judging from the fact that 20,000 acres in Mysore State alone have been sprayed this year and it must be most encouraging to those responsible that their recommendations are being so largely adopted.

The Rubber station continues to exist but the work has necessarily been on a much reduced scale. With the recent market improvement, which we trust will continue, it is our hope that we will be justified in extending our activities on the station once more.

It is with deep regret that I have to record the deaths since our last Meeting of the following members of our community:—

W. RHODES JAMES, Formerly Proprietor of Benhope Estate, Nilgiris, at "Sherwood," Kilpauk, Madras, on 17th May, 1933, at the age of 84. He was one of the pioneer Planters of the Nilgiris and was present at the first Conference held in 1893, which led to the formation of the U. P. A. S. I. He also attended Annual General Meeting in 1895 as delegate for Nilgiris.

H. S. K. MORRELL, Of Cavunal Rubber Estate, Travancore, on 21st August, 1932.

MISS M. P. WOLLEY, Late Proprietor of the Woodcote Estate, Coonoor, at "Selborne," Coonoor on 4th September 1932, aged 86 years.

CAMPBELL HUNT, At Worthing on September 8th, 1932. He was a pioneer Rubber planter of the West Coast and intimately connected with the formation and opening of most Rubber Estates in North and South Malabar.

J. A. RICHARDSON, Pioneer of the Planting Industry—late of Cochin Travancore and High Range in England on the 29th September following an operation performed on the 27th September. The late Mr. Richardson was the Chairman of the U. P. A. S. I. during the years 1909–10 and again in 1914–15. He was for a number of years connected with the Madura Co., Ltd., Cochin, of which he was the Manager when he retired. He was also the representative of the U.P.A.S.I. on the Madras Legislative Council during the period 1919–1922.

T. H. SHAW, Formerly of Polibetta, Coorg, at Home on the 18th October.

P. E. ACHARD, Of the Upper Paralai Estate, Valpari at sea on the 5th December 1932.

A. C. WHITE, Late of Karapara Estate, Nelliampathis, Cochin, of Pleurisy at the age of 60, on 2nd February, 1933.

E. F. MORRISON (Alic), Of Cullocoray Estate, Nilgiris, at his home in Scotland in February 1933, aged 60 years.

H. WADDINGTON (Hal), Late Secretary of the United Planters' Association of Southern India at the age of 63 of cerebral haemorrhage in England on the 7th April, 1933. Mr. Waddington came out to India in 1889 to the late R. K. Walker in Wynnad and planted in that District till 1896. In 1912 he joined the Pullengode Rubber Company, and left it in 1916 to become Deputy Director of the Labour Department. In 1919 he was appointed Secretary of the U. P. A. S. I. which position he held until he retired in 1931. He was Vice Chairman in 1915–16 and Planting Member in 1931 for a short time. He attended every Annual Meeting of the U. P. A. S. I. between 1913 and 1930. Those of us who had the pleasure of working closely with him can testify to the ability and energy he consistently gave to the affairs of this Association.

J. LORNIÉ, Proprietor of the Bariady and Kannahutty Estates of Kotagiri, of heart failure on the 19th May, at Kotagiri, aged 67 years.

D. MACKINTOSH, Late of Periashola Estate, Gudalur, Nilgiris. He was for some years the Honorary Secretary of the Nilgiris-Wynnad Planters' Association.

P. M. WILKINS, On 8th June, 1933, on Hoscottey Estate, aged 62, for many years a planter in Coorg.

V. MARDON (Val), Late of the Kerala Tea Estate, of acute Pneumonia at the Manjeri Hospital—Malabar on the 6th July, 1933.

L. L. PORTER, of Nonsuch Estate, Coonoor, Nilgiris, in England on the 14th July, 1933. He was chairman of the Nilgiris Planters' Association for one year and three months in 1910–12. The late Col. Porter represented the Madras European constituency in the Legislative

Assembly in 1929, he was commandant of the Nilgiris-Malabar Battalion A. F. I. and closely connected with the Boy Scout movement in the Nilgiris.

ARTHUR MORGAN, For many years a planter in the Nilgiris and planted up Arcood and Cotada Estates, at Bangalore on January 27th, 1933, age 76.

B. M. BEHR (Barney), Died in England on 12th July, 1933, was a former president of the U. P. A. S. I. sports club and a very popular figure in all planting social affairs. He was member on the Executive Committee in 1923-27, was for some years chairman of the Wynaad Planters' Association and represented that Association on many occasions at our annual meetings as a delegate.

E. W. DUNCAN, Manantoddy District, about June 17th, 1933.

Among friends of our community:—

KIRKPATRICK, of Ooty on August 1st. Mr. Kirkpatrick was a good friend to many planters and well known throughout the South Indian planting world.

To the relatives of all these I tender our sympathy and condolence in their loss.

The work of the Association has been exceptionally heavy during the year and added to this we have been without the services of Col. Brock, our Secretary who was away on a long and well-earned holiday for 9 months. I would like to place on record my thanks to Lt.-Commander Hill, the acting Secretary and to Mr. Mackie, the acting labour department Director for the manner in which they carried out the duties placed upon them. To Col. Brock and to Mr. James and to all the members of the staff I tender my thanks.

Finally to the members of the Executive Committee I offer my sincere thanks for the advice and assistance they have so cordially and ungrudgingly given me during the year. (Prolonged Applause).

The Chairman:—I will now ask the Hon'ble the Resident to speak.

THE HON'BLE THE RESIDENT'S ADDRESS.

The Hon'ble the Resident then delivered the following address:—

It is a very real pleasure to me to meet to-day the representatives of an Association which, although described as the United Planters' Association of Southern India, is a body whose influence extends far beyond the confines of Southern India. It is a body whose aims and objects are those which make for stability and progress in trade. Its methods of work are calculated to bring prosperity not only to the owners but to that vast body of labour which finds an outlet for its energies in the estates which stretch from the western territories of Mysore, through the tiny province of Coorg, the beautiful Nilgiri uplands and so on through the Anamallais to the lofty hills of Travancore where the headquarters of the tea industry has its being in the geographically remote but famous township of Munnar.

I find also that this is apparently the first occasion on which a Resident in Mysore has been invited to open your annual general meeting although he has many times spoken on such an occasion; and I appreciate the honour that you do me in asking me to open the 40th

meeting of your Association. Eleven years have passed since I was in Bangalore as Secretary to the Resident, years which have seen changes in the world which would not then have been thought possible. At times it has seemed as if the very foundations on which we have builded our fabric of civilisation were crumbling beneath our feet. The bad times have hit all classes alike; but I do think that signs are not wanting that the economic depression is beginning to lift. None have suffered more than the great industries that you represent; but the resolution and quiet confidence with which you are meeting the problems that assail you at every step, are happy indications of the spirit which I believe to exist in India among Indians and Englishmen alike. It is largely this spirit which has preserved India from the worst effects of world depression; and if I may refer for a moment to politics, it is my firm belief that it is this very spirit that is going to make the coming constitutional reforms succeed. A contented and united India is one of the first essentials of economic recovery; and if the rest of India will take a leaf out of our book down here that desirable condition would not, I believe, be far from achievement. I refer to your two great industries of tea and coffee. These have been built up by British capital with the help of Indian labour. Without the combination of those two there would be no such industries in India to-day. But in ever increasing proportions India is now contributing her share both of brains and capital, and it is proper that it should be so. It is the harmony which exists in this part of India between the two races which is helping your industries to weather these bad times. Many of your estates are in Indian States, the great States of Mysore and Travancore. I cannot speak for Travancore; but as regards Mysore, the relations between the Planting community and the Government of His Highness have always been of the happiest kind. (Applause). There is no planter problem in Mysore. The Government of His Highness looks to the interests of all people who live within its territories; and the result is that your problems, difficult though they may be, are never political in their nature.

I am diffident to speak on the peculiar problems that are engaging you to-day because I have only very recently returned here after a long interval during which I have served in parts of India far removed from Mysore. I have been too long out of touch with the activities of the planting community to do much more on this occasion than listen with great interest to what your Chairman has said. My remarks therefore will be very brief.

On the subject of tea I think you may rest assured from what has already appeared in the Press that the authorities in Simla do appreciate the vital necessity of restricting the output and export of tea and will do their best to assist planters in this matter. A fact which may not be generally recognised by the public is that tea is the most important plantation crop in India. The tea industry was established in India about the 9th century and there was a belief in the beginning that the seed had been imported from China but when it was discovered that the plant was indigenous to Assam the future of the industry was assured. To-day India is the largest tea exporting country in the world and it is estimated that it supplies about 40% of the world demand for this commodity.

I understand that as a result of the tea industry in India being in the throes of a severe depression owing to a general over-production

throughout the world, and the consequent drop in prices, which at certain periods fell definitely below the cost of production, an International Agreement was signed by representatives of tea producers to regulate the export of tea for a period of five years and that at the request of these representatives, the Government of India have issued orders restricting the export of tea outside India to consignments covered by licenses issued by a licensing committee. (Applause). I also notice that your Association has been empowered to nominate two members of the Committee, one to represent British India tea estates and the other the tea estates in Indian States.

The restriction of the export of tea from India necessitates simultaneous action being taken to restrict tea production as otherwise the Indian market will be over-supplied. The result would be a severe slump in the prices of tea sold for consumption in this country. It is necessary therefore in the interests of the tea industry that no time should be lost in introducing a scheme for restricting the output of tea. The opinion expressed by the South Indian Association in London indicates that the price of tea is governed by the well known economic principle of supply and demand and that the low prices are due to over-production. Equilibrium between supply and demand can be restored only when there is restriction in production.

I understand that you have already taken necessary steps in the matter which is one of the subjects for discussion on the agenda of this meeting and possibly you will agree with me that the scheme should be brought into effect with the least possible delay. (Applause).

One of the sections of the International Agreement by the tea growing countries provides for the restriction of the output of tea by prohibiting or preventing further areas being added to or leased out for tea cultivation. The Secretary of your Association has already addressed me officially in this matter and has enquired whether the Coorg Government would co-operate with your Association in implementing the above section of the Agreement. I have made a reference to the Government of India in the matter and am awaiting their orders. I may say, however, that no objection is likely to be raised so far as the Coorg Administration is concerned.

I now pass on to the coffee industry, an industry, Gentlemen, in which those of us who are so fortunate as to find their path running in the pleasant lands of Mysore and Coorg, cannot fail to be interested. It is just over a hundred years since the first plantation was started in Mysore. From Mysore the cultivation spread rapidly to Coorg, the Nilgiris, the Wynaad, the Shevaroy hills and Travancore. By 1862 the industry reached its zenith; three years later the borer beetle and the leaf blight which followed affected it seriously. As a result, in the Wynaad and the Nilgiris considerable areas formerly under coffee cultivation were, as you will all know, converted into tea estates. In spite of the borer, however, the industry in Coorg and Mysore has been able to hold its own. The Coorg Legislative Council has recently placed on its statute book the Coorg Agricultural Pests and Diseases Act. The Act is designed to deal with agricultural pests and diseases in Coorg and in particular with the pest known as the "Coffee borer beetle." In 1930-31 there were in South India 160,900 acres of land under coffee cultivation and the total yield was 32,973,000 lbs. as against 125,000 acres and 20,487,900 in 1921-22. This only shows that intensive cultivation of coffee has spread to about 36,000 additional acres during the

past decade. In order to find better markets for coffee produced in India and to carry on propaganda for Indian coffee in the United Kingdom it would seem to me necessary for all coffee growers to co-operate in combination with your Association. Such a combination will be useful to collect and disseminate statistics and other information relating to coffee, to increase by means of advertisement and propaganda the consumption of Indian coffee in India and elsewhere and to establish a central agency through which the sale of coffee may be effected. One such Association has been registered in Coorg but possibly you will agree with me that it is essential to have a central organisation for the whole of South India if one does not already exist.

The other important plantation crop is Rubber, the systematic cultivation of which began as recently as 1900. In South India the only tracts in which the climatic conditions are suitable for the growth of rubber on a commercial scale are the Malabar Coast (below the Western Ghats from Mangalore to Cape Comorin) Coorg and Mysore.

The statistics of production of rubber show that it has been on the decline since 1929 owing to the slump in prices and consequent cessation of tapping. It is gratifying to note that this year the price of rubber is nearly double what it was last year. It is a happy augury for resumption of tapping.

Gentlemen, I am afraid I have detained you longer than I intended. My only excuse must be the interest which is aroused by my very intimate connection with your industries in my capacity as Chief Commissioner of Coorg and from the knowledge I hope to acquire before I have been here much longer as Resident in Mysore. Fortunately in Dr. Coleman I have a friend who will tell me everything there is to know about coffee and I very much hope shortly to be able to visit his experimental station at Balehonnur where I am informed valuable experiments are being made to the lasting benefit of the industry. May I end on a personal note. The last time I was in Bangalore during a meeting of your Association was 1922. Of the members who attended that meeting, there are, I believe, only seven present to-day. This may give rise to a melancholy reflection on the passage of time but it is on the other hand very heartening to realise that there are ever people ready to give unstintingly of their services towards furthering the interests of your Association.

The names of your Chairman (Mr. Fowke), your Ex-Chairman (Mr. Congreve) and of Mr. Tipping from Coorg are familiar to me from the time when I was here as Secretary. To them and to all of you I extend a very hearty welcome. It is my earnest wish that your deliberations may meet with success and that this your fortieth meeting may in after years be recalled with pleasure as marking the turn in the tide in the fortunes of your great industries. (Loud Applause).

The Chairman:—We have all listened with very great interest to what the Hon'ble the Resident has told us. The remarkable knowledge that he displayed of the subjects connected with the U. P. A. S. I. illustrates very clearly the interest he takes in us, and, I think, this is an excellent augury for the future of the U. P. A. S. I.

On your behalf, I express our thanks to the Hon'ble the Resident for coming to-day and opening this meeting. (Loud Applause).

The Chairman:—I will now ask Mr. Langley, our Planting Member, to address the meeting.

THE PLANTING MEMBER.

Mr. W. K. M. Langley:—When our Chairman invited me to take the place temporarily of Mr. James as Planting Member I confess that I looked at the matter with rather mixed feelings. Naturally in the first place with pardonable pride at being the first of what the greatest living planter so improperly describes as "the West Coast vultures" to be so honoured: but on the other hand with a feeling of trepidation at taking the place, even though temporarily, of such a consummate politician as Mr. James and also with a feeling that I might be regarded as an usurper in a position which in the absence of Mr. James should perhaps more properly have been occupied by a planter. Many present will no doubt recollect the famous occasion in the House of Commons many years ago when the Hon'ble Robert Spencer a great aristocrat and the best dressed man that has ever graced the House of Commons had to confess that he was not an Agricultural Labourer. Similarly had any one asked me whether I was a planter I should have had to confess that I was not although I might justifiably have added in the words of the Roman poet:

"O Fortunatos nimium, sua si bona norint,
agricolas!"

which very loosely translated would have signified I only wish I were.

On the general political subjects of the past year as specially affecting planters Mr. James will no doubt be speaking either on this or some other occasion much more fully than I can and with much greater authority than I possess. As Mr. James anticipated at the time he went to Delhi the political interests of planters shifted in a marked degree to the Legislative Assembly. You are all aware of the prominent part that Mr. James played in the negotiations with the Government of India regarding restriction of Tea exports. But what on this occasion I wish to draw particular attention to is the great part that Mr. James played, and about which I have no doubt he will be unnecessarily modest, in bringing about the ratification between India and the United Kingdom of the Ottawa Agreement. It was of the utmost importance that India should ratify that agreement and it is a fairly open secret that it would probably not have gone through the Assembly had it not been for the able negotiations of a very small body of men amongst whom Mr. James played perhaps the leading part. If it had not been ratified Tea and Coffee would not now be enjoying even the modest preference that they are already getting in the markets of the United Kingdom.

As anticipated proceedings during the various Sessions of the Madras Council which I attended were uneventful in matters directly affecting planters. On only 3 occasions was I called upon to intervene in debate but as it happened these three occasions were of some general importance. The first was the consideration by the Madras Council of the question of a Second Chamber for Madras under the Reformed Constitution. I was called upon to speak on behalf of the European Group. I am afraid that speech did not produce any striking result seeing that there was a very heavy majority against a Second Chamber. All I have to say as to that is that had that debate taken place, as it should have done, after and not before the publication of the White Paper I think that while the Resolution would not have been carried the voting figures would have been very different. Obviously with a Second Chamber representing a sound conservative element we and other minorities could

afford to dispense with some of the safeguards which at present we feel to be necessary under the Reformed Constitution.

The second occasion on which I spoke was on a matter which has directly affected many planters. This was on the proposal put up in the teeth of strong Government opposition that the land revenue during the current year on Ryotwari lands in the Presidency should be remitted by 12½%. There was I felt great justice in this claim and I was not unmindful of the very cold and unsympathetic attitude of the Madras Government when Rubber planters applied for remission of land taxes. With the full approval of the European Group therefore I spoke fairly strongly on this subject. I will not go so far as to say that my speech directly affected the decision of Government but it did show that the whole House including those who usually vote with Government was absolutely unanimous. As a result Government had to bow to some extent to this strong feeling and in certain Districts the collection of land revenue to the extent of 12½% has been suspended. This has been to the direct benefit of many Tea Plantations more particularly in the Wynaad District.

The third occasion on which I addressed the House was when our Leader Mr. Birley very kindly selected me to voice the opinion of the European Group at the debate on the White Paper. I need not, however, go any further into that subject as Mr. James has just arrived hot-foot from the very centre of things.

That is my brief record of a rather brief experience: but before sitting down I trust you will permit me to make a short allusion to the question of European political organization in this country. From my own experience and observation I am convinced that under the New Constitution the various European Groups if they play their part properly will carry even more weight and influence than they do at the present time and I need not remind you that this view was expressed eloquently by Mr. James at the last two Annual Meetings of this Association. But in order to exercise this influence it seems to me perfectly obvious that there must be a strong central political organization and that we must above all avoid dissipating our strength in what Napoleon once described as "the little packets." I have already alluded to the way in which I was able to lend support to other agricultural interests in this Presidency. Now I feel convinced that when the New Constitution is working strong parties will emerge and among these parties none will be stronger than the enormous agricultural interests which when they wake up will refuse to be exploited any longer in the interests of a few Millionaires in Bombay and Calcutta. When that awakening takes place the European Planting interests with a strong political organization should be able to play a great part as an influential section of the agricultural interest. I therefore venture to view almost with equanimity the changes which are shortly to take place and I feel more than ever convinced that where the great planting interests in this country are concerned, interests which represent development of the country in the truest sense as opposed to exploitation, our destinies in this country are not yet fulfilled. (Loud Applause).

The Chairman:—I will now call upon our Political Representative, Mr. James, to address the meeting.

THE MADRAS POLITICAL REPRESENTATIVE.

Mr. F. E. Jamer:—Mr. Chairman, Colonel Plowden, Ladies and Gentlemen, the Chairman has already referred to my work in the Legislative Assembly and so I will touch upon only one or two matters which transpired during the course of the year.

The first was the passing by a large majority of the Ordinance Bill by the Assembly, which placed upon the Statute Book certain emergency powers which had previously been taken by the Viceroy, in permanent form for three years, and which aimed at dealing with the Civil Disobedience Movement. That, together with the passing of Security Bills in other provinces, was the first evidence of a definite turn of the tide on the part of Indian public opinion against the Civil Disobedience Movement, and I think I can say that as a national movement and as a mass movement, the Civil Disobedience Movement is now dead. Mr. Gandhi, that curious person whom I saw in Poona on my way to England within four days of the completion of his fast, and with whom I had an interview on pieces of paper because it was his "Silence Day," by his disastrous leadership, has as effectively disorganized the Congress Party as Mr. Lloyd George disorganized the Liberal Party some years ago. They are rather alike, Mr. Lloyd George and Mr. Gandhi. I have met them both and I find that both have within them the makings of magnificent Dictators. But Dictators are seldom good party leaders and, when their policy is confused, uncertain and not calculated to yield practical results, they lose their power even as Dictators. That is what has happened both to Mr. Gandhi and Mr. Lloyd George.

The other matter which has already been referred to, was the ratification of the Ottawa Agreement, which, to my mind, was a most important event in the development of India's economic relationship with Great Britain. The failure of the World Economic Conference—for it completely failed to achieve any of the original objects for which it met—has, at last, proved what many people believe to be true, namely, that it is quite impossible to secure at the present moment a world-wide agreement on any single problem, whether effective economics or currency. In fact we have now disproved the theory in international politics that "the more we are together, the merrier we shall be." In the U. P. A. S. I. we have 13 District Associations, and it is not always easy to get agreement. What would happen if there were 66? As you know there were 66 countries represented at the World Economic Conference. It began in an atmosphere of distrust and that leads me to a story which is going round in London, and which I should like to pass on to you.

It appears that after the second meeting of the Conference, a Serbian delegate complained to Mr. Ramsay MacDonald that somebody had stolen his watch. He said that this would cause great inconvenience to him and that he could not possibly remain in the Conference unless the watch was found. Whereupon the Prime-Minister made an appeal to the Conference and said it was very awkward that, at the outset of their deliberations, they should lose trust in one another. They could not expect 66 delegates to sit down side by side in fear of missing their best valuables, and he appealed to the Conference to do all in its power to find the missing watch. After the meeting, the Montenegro delegate came to the Prime-Minister and told him that they had been extremely touched by the Prime-Minister's appeal to the Conference and that he

would personally guarantee the return of the watch within two days. Two days later, the Montenegro delegate came to the Prime-Minister and said: "Mr. MacDonald, it is quite all right. The Serbian delegate has got his watch back." "Well" said Mr. Ramsay MacDonald, "I am very glad to learn that." "Who had it?" "Well," said the Montenegro delegate; "I do not wish to divulge his name, but speaking in strict confidence, the Bulgarian delegate had it." The Prime-Minister said, "But how did you persuade the Bulgarian delegate to return it to the Serbian delegate?" He replied: "I did not; he still thinks he has got it." (Loud laughter).

There you are. A conference which met in an atmosphere of suspicion, could not possibly hope to succeed. But one great result will, I think, emerge from the failure of this Conference, and that is, the tendency will more than ever grow to develop regional agreements between countries which have interests and ideals in common. Nations which are on sterling basis are already coming to regional agreements and, I believe, also that countries which are bound together by ideals and interests, such as the members of the British Empire, will be bound by closer economic links than they have been in the past. Surely that is the way in which things will develop. After all the world is still a big place and the only hope of economic development is on lines of common interest or common need. Now that the World Economic Conference has met, and it will never be revived in its original form. I believe the nations of the world, and particularly Great Britain and her sister nations in the Empire, will feel freer to develop their own regional economy and political agreement, untrammelled by commitments to certain Governments that are proceeding on an entirely nationalistic basis.

There are certain Bills which are still before the Assembly:—The Workmen's Compensation Bill; The Payment of Wages' Bill; The Income-Tax Bills; and The Finance Bills. You will remember that at the last Session, in connexion with a Bill on the Ottawa Agreement we endeavoured to get relief as regards the withdrawal of the drawback of duty on tea chests, I moved an amendment in the House and I only withdrew it on the assurance given by the Commerce Member that he would look into the matter and see whether he could not do something for the Planting Industry in that connexion. I hope to remind him of his promise next week.

In connexion with the duty on copper sulphate and rubber hosing, I had the opportunity of placing this matter in Delhi before the Imperial Council of Agricultural Research, and while I was at Home the President of that Council came to give evidence before the Joint Select Committee, and I spoke to him again. He promised to let me have a definite reply during the coming Session of the Legislative Assembly.

There was also one other matter on which I made a representation, and on which I claim we had some considerable success, and that is the question of income-tax on the cost of 'supplying,' which had hitherto been charged to Capital. You must have seen the communique issued by the Central Board of Revenue which brings us back almost to the original position which we desired to obtain. The only question that is now before us is as to whether there is any possibility of obtaining a refund of the tax already paid owing to the previous Order of the Central Board of Revenue which can only be described as iniquitous. That is a matter which I will deal with in Simla next week.

The Indian Tea Control Bill, of which I only received a copy on my return to this country, provides for the regulation of exports and the control of extensions of planting on existing areas, and will come up before the Assembly Session in Simla. I hope at that Session it will be passed, after being referred to a Select Committee. I think it is only fair to say that the thanks of the planting community throughout India generally are due to the Government of India, and in particular, to the Indian Commerce Member, Sir Joseph Bhore, for agreeing to implement by legislation the international agreement which was arrived at by the Chief tea producing countries. I hope that the proposals to restrict crop—which are the natural corollary of the Regulation of Exports and the control of extensions—will similarly be accepted. Only those who had anything to do with the negotiations in connexion with this matter realize the difficulties against which the Government of India had to contend, and I hope you will permit me to take back with me to Sir Joseph Bhore, the thanks of the U. P. A. S. I. for what he has done for the tea interests in this presidency. (Applause).

As regards other matters referring to the Assembly work, I will deal with them later when we discuss the Political Department.

I understand, that it is expected that I should say something about my visit to England and about the work of the Joint Select Committee.

Since I have been in Bangalore I have been asked the question "What are the chances of the White Paper as a result of the proceedings of the Joint Parliamentary Select Committee?" First of all, I should like to express my thanks to you for allowing me to represent the European Community before the Joint Select Committee. It was not an easy task. I left for England with a very incomplete brief on which I had to base my case. I had associated with me two other witnesses, of whom one disagreed with the European Association from the beginning to the end, and the other did not arrive in England until after the memorandum had been printed and sent in. Therefore, I had to take the responsibility of writing the whole of the Memorandum myself, but fortunately I had the advantage of a number of gentlemen in England who were on leave from India who formed into a consultative committee and whom I was able to consult from time to time.

The procedure was that the Memorandum had to be printed and sent in to the members of the Joint Select Committee ten days before I was called upon to give evidence. Then a day was fixed on which I had to appear before the Committee. The Committee, including the delegation from India, numbered sixty strong and they assembled in one of the robing chambers of the House of Lords, in a room just about as big as this. They sat at two tables like this, with a table across the end, in two rows, with the Lord Chairman in the middle. The Lord Chairman had the advantage of the witness, because he had behind him some very fine stained glass windows and the witness had behind him no windows at all, so while the Chairman could see every expression on the face of the witness, the witness could not see the features of the Lord Chairman at all.

The members of the Committee asked questions in order. They first of all, of course, gave the priority to the Archbishop of Canterbury, then to the Lord Chancellor, then to Sir Austin Chamberlain as being one of the elder statesmen and then they generally went round the table on the one side and then down the table on the other side asking the

members of the House of Commons and the members of the House of Lords to put their questions first. Afterwards the Indian delegates put their questions. There was no order about the questions that might be put. You might be answering one question now about the Federation, and the next moment about commercial discrimination.

I was under cross-examination actually for 6½ hours. It began at 10-30 in the morning and I got away about 6 o'clock in the evening. The whole of that time I had to bear the brunt of the questions and there were some very astute questioners on the Committee. The Committee consisted of representatives of all the parties in the various Houses. The Die-Hard Section was represented by the Marquis of Salisbury, a charming and benign gentleman of 73 or 74 years wearing a frock coat which belongs to the Nineties and with a charming manner. He was the most astute questioner on the whole of the Committee, and unless you are very careful, he led you into the exact trap where he wanted you and then left you there.

Then another very able questioner was the Archbishop of Canterbury, and it was wonderful that a man whose connection with India has been so slight, should know so much about it. Whenever there was any difficulty or when the members of the Committee were confused as to what the real point at issue was, he would come in and put the one question which everybody wanted to ask to get the exact information which everybody wanted to have.

Another very astute questioner was the late Lord Burnham, who died only the other day. We witnesses had the opportunity of a long conversation with him on the day that we gave evidence in connexion with our proposals in regard to the Police.

Another able questioner was Sir Austin Chamberlain. As you know, he is without office and he is definitely recognised as one of the elder statesmen. The week before I gave evidence, Sir Hubert Carr arranged for us to meet Sir Austin Chamberlain and to talk over with him the necessary details in regard to our proposals concerning the Police, with special reference to the Terrorist Movement and the protection of the Special Branch dealing with terrorist and subversive Crimes. Fortunately our Memorandum had not yet been completed, and so the proposals that were ultimately put forward in the Memorandum from the Europeans in India, were put forward after consultation not only with the interests here, but with the Services in England and also with a man like Sir Austin Chamberlain, who has had a vast administrative experience, and who could tell us what the Parliamentary mind was likely to be on that particular subject. That was most valuable indeed and I may say that, as far as indications go, the report of the Select Committee in dealing with the Police, will, I think, very largely follow the proposals which we made in our Memorandum. I think if that is the case, then we are entitled to congratulate ourselves on having put forward really constructive proposals, no re-actionary, but practically constructive proposals relating to the safeguarding of certain aspects of Police Administration.

After the evidence had been given, I was then engaged in helping to prepare the Memorandum of the Associated Chambers of Commerce which dealt more especially with commercial and professional matters. The European Association's evidence dealt more with the political side of the question, and its Memorandum consists of a booklet of about thirty-two pages, of some sixty paragraphs, ranged over a variety of subjects.

The four points that we really managed to get over in connexion with the Joint Select Committee were:—

First of all our proposals in regard to the Police.

Secondly, our proposals that there should be Second Chambers in all the major Provinces, which were received well and, I think, we can congratulate ourselves that there we made a very good impression upon the Committee. I always realized that our Planters' Association was desirous for a Second Chamber in Madras.

The third point on which we made an impression was in connexion with the expense of the reforms. We worked out certain figures pointing out that the reforms on the proposed basis would involve an enormous expenditure, and that we were determined that in providing funds for that expenditure, the Government of India and the Government at Home should not take into consideration at all the emergency surcharges on Customs and Income-Tax. As a result of our first evidence on this matter, Sir Malcolm Hailey was put on to prepare a Memorandum on the subject, and you would have seen it published quite recently in the pages of the "Hindu" and the "Madras Mail".

Fourthly, we made an impression upon the Committee on the question of the future of the Governors of the Provinces, and the staff which they would require to enable them to keep in touch with all the developments that are likely to take place under "Provincial Autonomy."

Then came the evidence of the Associated Chambers of Commerce in connexion with which I was not a witness, but whose Memorandum I had taken a part in preparing. As I said before, that dealt largely with financial matters, with commercial discrimination and with the protection of the professional men in this country in the future. The evidence is now published and you can read for yourself, if you have the will and the time, so as to see what transpired. But, I think, I can say this, that as far as commercial discrimination is concerned, the Joint Select Committee is prepared to do what it possibly can to protect us against any unfair attacks in the future. It is also equally clear that the best protection against any such unfair attacks cannot be in any Statutory Rule or in any Clause in the Constitution Act, but it must be in our own power to defend ourselves in this country in those places where these attacks are likely to come. That is why I endorsed every word that Mr. Langley has said in regard to the organization of our political affairs under the new conditions in the future.

Now, I have been asked what else did I do at Home besides this? Well, I am not prepared to tell you everything that I did, but I will tell you a good deal. When we got home, we found that one of our greatest difficulties lay in the complete ignorance and the misunderstanding of the position of the Europeans in this country, so we planned to try and make our position clear in quarters where it was important to make it clear. I was turned on to make it clear in Parliamentary Circles and owing to the kindness of many friends, I was able to address five meetings of the members of the House of Commons and of the members of the House of Lords.

On the first occasion Sir Edward Benthall, Sir Leslie Hudson and I spoke to the Conservative Committee on India, and thereafter I addressed groups of 60 members, of 40 members of 35 members and of 30 members, and they all listened with attention. On one

occasion I met thirty gentlemen who were elected to Parliament for the first time, and a most interesting experience it was. On another occasion a group meeting was arranged by the Empire Parliamentary Association and there were present members of both the House of Commons and of the House of Lords. The procedure generally adopted was that we explained our position in about twenty minutes and then asked members of the group to fire off questions. It was at question time that one got a real insight into the dismal ignorance of the average members of Parliament on the actual conditions in India. On the last occasion, the day before I left, I was cross-examined for 2½ hours one evening in one of the rooms in the House of Commons by men who were keen to know the facts. They appreciated all the facts when they were told to them, but they found great difficulty in realising the situation without any personal knowledge or experience of this country.

Then another activity in which we engaged ourselves was in dealing with the Press, and there again, we found ourselves up against great obstacles. There is a press campaign at the present moment which for its virulence and unscrupulousness, has scarcely been beaten in any political campaign in England. It is a campaign not so much against the White Paper as against the Government and particularly against Mr. Ramsay MacDonald and Mr. Baldwin. It is led principally by the "Morning Post," which I was brought up to consider, as a most respectable paper. But I am bound to say that the length to which the "Morning Post" has gone in recent months has led me to suspect that it is under some evil influence, for it has been utterly and entirely unscrupulous in publishing false rumours and public statements which were utterly and absolutely untrue. Finally the Secretary of State himself was forced to protest against the allegations of that paper. Now I simply mention this to show what difficulties we had. All the time a section of the Press was trying to misrepresent the position of the Europeans in this country, and to undermine the real character of all those who had been sent Home to represent their views before the Joint Select Committee. It obviously took up a certain amount of our time in interviewing people and getting others to write letters for us in regard to the real state of affairs, because we were determined that, as far as we were concerned, we would not ourselves enter into the press campaign.

There was one other matter on which we were engaged. It does not affect directly the White Paper, but it is a matter, I consider, of very great interest indeed, and that is, the negotiations between India and Lancashire in regard to co-operation in the textile field, and joint action against Japan. You have seen various statements in the Press relating to the negotiations between India and Japan in regard to a new trade agreement, and between Britain and Japan in regard to a trade agreement there. I may reveal the fact that two European non-officials, Sir Edward Benthall and I, were responsible in the first instance for bringing together the Bombay representatives of the Textile Industry and the Lancashire textile representatives. The first meeting at which both these representatives attended was one of the most interesting I have ever been at. There was no Press Report of the meeting. The gloves were entirely off and while the Bombay representatives were pretty straight in their talk, those who came from Lancashire were still straighter. Sir Edward Benthall sat beside the two groups trying to put in a peaceful word now and again. The result of that meeting was good. The most important men both from Bombay and

Lancashire were present at the meeting. Just before I left, Lord Derby became interested in this exchange of views, and I hope that before very long both Bombay and Lancashire will have arrived at some tentative agreement as to the lines which they will follow in dealing with the Japanese Agreements. There was another thing in which they were particularly interested, and that was the sphere of activity which is still open to the Lancashire interests to pursue in India, which will not be "crabbed" by the Indian Mill Owners' interests in this country and which do not clash with those interests.

There is one other matter which I should like to deal with. I have been asked many times as to whether in my opinion the White Paper is likely to go through Parliament or not? What is the strength of the Churchill opposition? If it does go through when will it go through? Well, in the first place, the position of the White Paper in the British politics to-day, has been greatly strengthened by the Secretary of State, Sir Samuel Hoare, who was in the witness box to give evidence on behalf of his own proposals. It is a thing which has never been done before. Sir Samuel Hoare was examined for nearly three weeks. He was asked a vast number of questions, searching questions on every aspect of the White Paper, and his candour and sincerity in answering those questions not only convinced very largely his own critics, both British and Indian, but raised him tremendously in the estimation of all those with whom he had to contend in the House of Commons. In fact, it is now being widely said that there are only two people who could succeed Mr. Ramsay MacDonald as Prime Minister, Mr. Neville Chamberlain and Sir Samuel Hoare. If Sir Samuel Hoare is able to place upon the Statute Book the substantial proposals of the White Paper, his position as the next Prime Minister is practically assured. That is one fact to be reckoned with and that has been a tremendous factor in commending the White Paper even to those who criticised it. I was told just before I left by no less a person than Lord Derby, the brother of the present Governor of Madras, that he thought that the Marquis of Salisbury was a little more favourably inclined to the proposals of the White Paper than he was at the beginning of the Committee. Therefore it looks as if the proposals will go through the Parliament. As for the strength of the Churchill opposition, it is not so much in evidence in Parliament as in the country itself. Mr. Churchill is a very astute and old campaigner. He has contested his position in the House of Commons on two or three occasions, and I am told that the maximum number of votes he can count upon is in the region of 80 to 100. That means nothing where there is a majority of nearly 400, and if divisions are forced against the White Paper, the whole of the Socialist Block will go into the Government Lobby on behalf of the White Paper. So far as the House of Commons is concerned, it looks as if the White Paper is fairly safe. The House of Lords is a different proposition, and I was told by competent observers that the two key men in that House are Lord Derby and the Marquis of Salisbury. If Lord Derby is prepared to swing himself in favour of the White Paper proposals, then there remains the Marquis of Salisbury, the scion of a noble house, who commands tremendous influence amongst the hereditary Peers. If it is true that he is more inclined not to reject the Secretary of State's proposals, then it looks as if the White Paper will also be safe in the House of Lords.

Mr. Churchill and his friends' minds will now concentrate not on Parliament but on the country. What they hope to do is to drive

Mr. Baldwin out of the leadership of the Conservative Party. If in the autumn at the annual meeting of the Conservative Association, they carry a vote of the Association against Mr. Baldwin, he will be in a very difficult position. Either he will have to ignore the Conservative Association's mandate or he will have to resign the leadership of the Conservative Party in favour of somebody else. But I should not like to predict anything so far as the country campaign is concerned.

Now as far as the dates are concerned, I am able to give fairly authoritative information. The work of the Joint Select Committee has dragged on much longer than it was anticipated. They had hoped to finish the evidence and have their report completed by the end of October, but at present it looks as if they will not finish until November and then their report will be presented to the Parliament by the end of the year. That means that the Bill cannot be prepared or presented to Parliament until the Easter Session next year, that is in 1934. On the most optimistic estimate the Bill cannot go through until the autumn of 1934. I remember last year I predicted that we might have Provincial Autonomy this year; but there is now no chance of that coming until 1935—either in the earlier part of the year or in the autumn. So far as the Federation is concerned, it is likely to come two or three years later. In conclusion I may say that I have come back with this general impression that within two years' time, there will be Provincial Autonomy in this country, including the transfer of the Police, subject to certain safeguards which we ourselves have insisted upon, subject also probably to the institution of Second Chambers in some Provinces where they are not now proposed. There will also be a Federation of India comprising of Provinces and the Indian States. I believe that the Secretary of State is satisfied that he has the promise of the requisite 51% of the Indian States to make the Federation a certainty and, I think, the tendency now is for more Indian States, than was originally contemplated, to enter the Federation from the first moment.

Then as regards the establishment of a Railway Board, this will be fulfilled within a short time. At the next Session of the Assembly the Bill for the establishment of a Reserve Bank will be placed upon the table. I understand that the Government is satisfied that they have already 38 million pounds in hand towards the 50 million pounds required for its establishment. The Railway Board will be established by the Constitution Act or by an Act of the Indian Legislature and a brief report has already been drawn up by the delegates who went to England for that purpose. The real difficulty is that of finance and that depends upon the world economic conditions. If the world economic conditions improve and prices rise, India will be the first to feel the effects, and if India feels the effects, then our finances will improve. But unless they improve there is in our present budget no possible chance of our being able to afford the constitution that is proposed. Therefore, although all the mechanical safeguards and the mechanical pre-requisites may be granted, although the Bill may go through, although the Constitution may be built, it may not be worked unless the economic and financial conditions improve; and that is dependent not only on India's effort, but upon improvements in general conditions and the general trade and commerce.

I do not think that I need say anything more. I shall be very glad to answer any questions that may arise out of what I have said when we discuss the Political Department. All I can say

is that the time which you gave me was used to the best possible advantage as far as I could possibly use it. We did our best to put up the case of our organisation in India. I believe we succeeded in putting before the Committee a fair picture of European views emphasizing all its variations from the Conservative to the Liberal. I think I can honestly say that we have made a good impression on the Joint Select Committee, and I hope when the Report is presented to the Parliament, we shall find that the White Paper proposals have been strengthened in some of the directions in which we wished them to be strengthened.

I can only thank you once more for allowing me to go and I can assure you of my whole-hearted endeavour to serve you in the future as I have endeavoured to serve you in the past five years. (Loud and Prolonged Applause).

The meeting adjourned for a few minutes and then re-assembled.

The Chairman:—I will now ask the Secretary to call the roll and check the names of the delegates present.

The Secretary then checked the names.

EXECUTIVE COMMITTEE'S REPORT.

The Chairman:—At the commencement of the meeting, I called your attention to the Report of the Executive Committee, copies of which have been circulated to all the members. Before asking you to adopt the Report, I should like to know if any delegate wishes to speak on the report or to ask any questions? I take it that no one has any questions to ask. I, therefore, move the following resolution from the chair:—

"That the Executive Committee's report for the year ending 31st March 1933, be and is hereby adopted."

The resolution was carried unanimously.

ACCOUNTS—1932-33.

The Chairman:—The next item on the agenda is the Accounts for 1932-33 which have been circulated to all the members.

I now call upon the Secretary to read the Auditors' report.

The Secretary:—The Auditors' report reads as follows:—

"We have audited the Balance Sheet of the United Planters' Association of Southern India (Incorporated) as at 31st March, 1933, and above set forth, and have obtained all the information and explanations we have required.

"In our opinion such Balance Sheet is drawn up in conformity with the Law and exhibits a true and correct view of the state of the Association's affairs according to the best of our information and the explanations given to us and as shown by the books of the Association and the returns from the Divisions.

"(Sd.) FRASER & ROSS,
Chartered Accountants, Auditors."

The Chairman:—This morning at our general committee meeting, I referred to the question of interest on the reserves. I will now go over the same ground again before asking you to formally adopt the accounts for 1932-33.

At the general committee meeting held on the 29th March last, it was resolved that the liquid reserves of the U. P. A. S. I. should be allocated to the different products and shown separately in the Balance Sheet of the U. P. A. S. I. and that the interest thereon should be credited to each product annually. The original idea was that this allocation should have been made as from the first April 1932, but as the accounts for 1932-33 were closed when the general committee meeting was being held, the Auditors only gave effect to this resolution, on drawing up the Balance Sheet as on 31st March, 1933. You will see that under the heading of accumulated funds, the exact amounts to be allocated, as decided on at that budget meeting, have been deducted and then shown as reserve against each Department, including the Head Office, except for such deductions as became necessary by drawing on the reserves in order to reduce subscriptions in the case of both tea and coffee.

As regards the rubber reserve, there is a slight adjustment to be made in the accounts as, when drawing up the Balance Sheet, the Auditors debited the Rubber Scientific Station account with Rs. 1,578-14-0, being the amount that was to be taken from the rubber reserve to make up the rubber subscription to the Head Office at five annas per acre, out of which they were only asked to pay in cash one anna per acre. This will be adjusted as a journal entry in the current year's accounts, the rubber reserve being decreased and the Rubber Scientific Department Account balance increased by this account.

In all other respects, the accounts take exactly the same form as was adopted last year and, in addition to the Balance Sheet, show the income and expenditure account of the Head Office, the "*Planters' Chronicle*," the Labour Department, the Tea Scientific Department, the Coffee Scientific Department, the Rubber Scientific Department and the Provident Fund.

I do not wish to go into a lengthy discussion on the accounts of the past year now as, if required, opportunity will be given for this at a later stage in the meeting.

I, therefore, move the following resolution:—

"That the Accounts for 1932-33 be adopted."

The resolution was carried.

MADRAS MOTOR VEHICLES TAXATION ACT.

The Chairman:—The next item on the agenda is the Madras Motor Vehicles Taxation Act. Messrs. The Tea Estates India Ltd. have requested that this subject be included in the agenda in order to draw attention to the pressing need for equitable taxation of vehicles using public roads other than motor vehicles. I will ask Mr. Millar to speak to his resolution.

Mr. W. H. Millar:—The taxation on motor vehicles forms a substantial source of revenue to the Provincial Government and is primarily intended for the maintenance of roads. The present system of taxation

is, however, inequitable. Motor lorries pay from Rs. 200 to Rs. 1,000 per annum by way of taxes, private cars pay amounts varying from Rs. 75 to Rs. 200 and the taxation on motor buses is proportionately high. Vehicles other than motors plying outside Municipal limits do not pay any taxes at all. That they should pay some tax is recognized on all sides, but a practicable method of levying tax on these has not yet been devised. The best possible solution for dealing with such vehicles seems to be the re-introduction of toll gates. I suggest that a resolution be passed, inviting the attention of the Madras Government to the necessity of taxing vehicles other than motors, so that those vehicles may bear their fair share of maintaining the country's highways.

The Chairman:—The following resolution has been proposed by Mr. W. H. Millar and seconded by Captain E. H. A. Travers Drapes:—

“Resolved that the attention of the Government of Madras be invited again to the desirability of devising some more equitable form of taxation on all vehicles using the public roads in the Madras Presidency.”

Mr. F. E. James:—May I just make one observation on this. During the year since the last annual meeting some progress has been made. A Bill has been introduced and has passed through the Council now which authorizes Municipalities to put up tolls in Municipal areas and, I believe, they are beginning to do that now. That was done because it was realized that once the Municipalities put up tolls, the next step would be that the districts might have authority once more to put up tolls for the bullock carts. Under the present circumstances, as soon as a bullock cart comes into the Municipality area, it has to pay toll for the use of the Municipal roads. It is quite obvious that in course of time tolls will be put up for all bullock carts, and this is the thin end of the wedge which has already been inserted.

Mr. P. G. Tipping:—As everybody knows it is the overloading of the country carts that does damage to the roads. Is it not possible that they should be registered? They carry over a ton. There are no means of checking them, and nobody can do anything. I think if they can only be registered, it will be a step in the right direction.

The Chairman:—An attempt was made, a deputation waited on His Excellency and we pressed this point. Mr. Langley also was a member of the deputation, but we could get no satisfaction at all. He would not even hear of this suggestion.

Mr. W. K. M. Langley:—His Excellency's principal objection was in the interests of the agriculturists who use carts only on their farms and who do not go on to the main roads at all. He said if you think of a system of registration, it will have to apply to all carts, and it will do great harm to those who use their carts only on their farms. So far as he was concerned he, therefore, would not consider the matter. As a matter of fact the question of the registration of carts has often been considered in the past. I know once we discussed this matter with Sir Charles Innes, the Collector of Malabar. He was one of the most distinguished officers in the Presidency and he said that he would not touch the registration of the bullock carts at all. The bullock cart, he said, was merely a platform of wood, with two wheels. It would be an extremely difficult thing to see that the registration was carried out, and it would cost more than any revenue that they would get from it.

Mr. C. R. T. Congreve:—I do not know why the Madras Government is not able to do anything so far as the registration of the bullock carts is concerned. Bengal does so and it has got just as much agricultural population as Madras. The same is the case in Ceylon. We might even go so far as to ask Madras if they were so inferior to Bengal and Ceylon that they were unable to do things which were done in those two places.

The Chairman:—I will now put the resolution to the vote which has been moved by Mr. W. H. Millar and seconded by Captain E. H. A. Travers Drapes:—

The resolution was carried.

The Chairman:—We will pass on to the resolution of the Mysore Planters' Association which reads as follows:—

"That the U. P. A. S. I. be asked to try and arrange with the Madras Government for payment of Madras and Coorg motor licence fees at specified post offices in Indian States."

Mr. E. W. Fowke:—This resolution has been put forward in order to solve the question which is a vexing one for all those of us who live within Indian States. The licence has to be taken out in Madras or some other place far away. This causes a great deal of delay. Something should be done in this matter so that this inconvenience may be avoided. I do not think there is anything more for me to say on this subject. The resolution explains itself. Anybody coming from Mysore and Coorg into British India at the present time has to go to a Cutcherry to take out a licence. There should be some specified places in Mysore where the licence can be taken out before going to the British territory.

The Chairman:—I would suggest that the resolution be somewhat altered and that you ask the Madras Government to approach the Indian States concerned. I think you will have to get their sanction.

Mr. E. W. Fowke:—We have already done that and they have turned it down.

Mr. F. E. James:—I am a little sceptical as to whether even the Madras Government will succeed where you have failed. A suggestion was made to the Madras Government that in the Madras Presidency the payment of licence fees should be made at the post offices, but the Indian Telegraph and Postal Department turned it down. There is no harm, however, in asking the Madras Government to approach the Indian States concerned. I may say that we have tried again and again to get the Government of Madras to devise some simple method. I took up this matter after the last annual meeting, and the suggestion then made was that they should give Honorary Secretaries of the District Planters' Associations the right to issue licences. The Police turned that down, because, I believe, they had correspondence with one Planter in a District which shall be nameless, and the correspondence became so lurid that the Police had to say "this correspondence must now cease;" so when the Madras Government referred this matter to the Police, they said that they could not deal with Planters. I do not know whether you can ask them to revise their decision now.

Then we suggested an arrangement with the Indian States for a certain number of days and that also was turned down. The last stage in which it was left was that we were thinking of putting forward an

alternative. I think the Mysore Association will be contented if I suggest that we once more urge the Madras Government to make some satisfactory arrangement for the payment of licence fees, which would obviate the necessity of a person from an Indian State or Coorg running into Madras for a licence. If you can reiterate your previous resolution on the subject, it will be all right. I would suggest one to this effect:—"This Association once more draws the attention of the Madras Government to the inconvenience of motorists from the Indian States paying licence fees in Madras and urges them to try and make some arrangement more satisfactory than the present one." Something on these lines might be moved and then we will see what can be done.

Mr. R. N. W. Jodrell:—Is it not easy to repeat the resolution we passed last year? That resolution runs as follows:—"That this Association calls the attention of the Madras Government to the inconvenience and hardship caused to the owners of motor vehicles residing in neighbouring Indian States and Coorg by the existing provisions of the Madras Motor Vehicles' Act relating to Motor Vehicles from Indian States and Coorg entering the Presidency for short periods. And further requests the Madras Government to take early steps to consider the possibility of instituting a more convenient and equitable arrangement."

The Chairman:—Are you prepared, Mr. Fowke, to reiterate the resolution that was passed last year?

Mr. E. W. Fowke:—Yes, that would meet the case.

Mr. R. N. W. Jodrell:—I want to know whether there was any reference to this resolution in this year's Committee Report? It was my intention to ask whether there was any report to be made as a result of that resolution?

Mr. F. E. James:—It is quite possible, that was my own mistake, but action had been taken. For the information of the members I may say that I interviewed the Local Self-Government Department Secretary, the Commissioner of Police and the Hon'ble the Finance Member in regard to this very matter, and the first action by the Secretary was to suggest that there should be a reciprocal arrangement with the Indian States concerned. The difficulty, however, was that the Indian States concerned told us that they did not want this and, therefore, any reciprocal arrangement was difficult. Then the next suggestion I made was empowered to issue licences, but this was turned down by the Police empowered to issue licence, but this was turned down by the Police for the reasons I have mentioned. Then the third suggestion was to arrange for the payment of licence fees at certain places in the Indian States. I think Cutcheries were definitely mentioned.

Mr. E. W. Fowke:—That would meet the case.

Mr. F. E. James:—The Indian States turned it down.

Mr. E. W. Fowke:—It is a very real hardship.

Mr. F. E. James:—There have been some extraordinary cases of prosecution too.

Mr. E. W. Fowke:—I think Mr. Jodrell's resolution may be put forward again. I move that the resolution on the Motor Vehicles' Taxation Act, the same as last year, be passed.

Mr. F. E. James:—I suggest that we put the resolution in this way. If we pass the same resolution, it will look as if we are simply passing it over again. The resolution may be worded in this way:—"That this Association regrets that up to the present the Madras Government have not been able to devise a satisfactory arrangement and reiterates, etc." I think we should start with an expression of regret and then reiterate our demand.

Mr. R. N. W. Jodrell:—In suggesting some way out of this difficulty, may I ask Mr. James whether it would be possible for British India, on its roads crossing the boundary into Indian States, to have a toll there simply for the purpose of recovering the taxes from the motor vehicles coming into the Madras Presidency from the Indian States' boundaries?

Mr. F. E. James:—We did suggest that but the Finance Department turned it down, and they said that it would not pay. They were not prepared to spend the money to establish such frontier toll gates.

Mr. L. Garrett:—Before this resolution is put to the meeting, may I make one other suggestion? The Madras Government have been pressed on all sides to re-introduce the tolls for the purpose of taxing vehicles. I suggest that if this goes through the Madras Legislative Council, Mr. James might then be able to take a line of action that motor vehicles registered in Indian States when entering the British territory should pay the ordinary toll fee. That would solve our difficulty.

Mr. F. E. James:—That would automatically happen if the tolls are re-introduced. If the owner of a motor vehicle has not got a licence, he will have to pay a toll. You either pay a toll or have a licence on your wind screen. When you come in to Madras and you have not got a licence, then you will have to pay the toll.

Mr. C. R. T. Congreve:—The original idea was that there should be no tolls. If you are going to re-introduce the toll system, then you are going to re-introduce the whole nuisance of the toll gate system.

Mr. F. E. James:—The difficulty of the situation is this. Generally you can persuade the Legislative Council to introduce tolls only for slow moving vehicles, but we suggested to them as an alternative that tolls should be, as they were in the old days, paid by all vehicles which have not got a licence. Even in the old days in the Municipalities we used to pay licence fees for the whole year, then you could go in and out of the town without paying the toll. If the resolution was put in that way, then they would probably withdraw their objection to the introduction of tolls for bullock carts. I expect most people would pay the licence fees for the whole year.

Mr. C. J. Madden:—In that case, would it be possible for a vehicle coming from Travancore, if the owner possesses a licence, to pass to and fro? The difference is very great under the toll system. An ordinary car can take out a quarterly licence of Rs. 25.

Mr. F. E. James:—I take it that there will be nothing to prevent you if you wanted to do so. If you do not have a licence, you could not go along very far without paying tolls. The proposal is under consideration.

The Chairman:—Has any delegate anything further to say in regard to this question? If not, I will put to the meeting the resolution proposed by Mr. E. W. Fowke and seconded by Mr. J. S. H. Morgan:—

"This Association regrets that the Madras Government have not been able, up to the present, to devise any satisfactory arrangement for the issue of licences to owners of motor vehicles residing in Indian States and entering the Presidency of Madras for short periods. It again calls the attention of the Madras Government to the hardship and inconvenience caused by the existing procedure, and requests the Government to take early steps to put an end to the present unsatisfactory position."

The resolution was carried.

REDUCTION OF ADVANCES.

The Chairman:—I think the Coorg Association has a resolution to move under this heading. Mr. Tipping, will you please speak to your resolution.

Mr. P. G. Tipping:—I move the following resolution:—

"That this Association approaches all Owners and Agents, European and Indian, of Tea, Coffee and Rubber Estates, whether members of a District Association or not, asking them to continue to co-operate to reduce advances to labour, in view of the necessity of falling into line with the recommendations of the Royal Commission on Labour."

It would appear from the findings of the Royal Commission on Labour, Health and Welfare, that in regard to plantation and agricultural labour, the impression created by the various publications on the subject of advances, is that the employer is anxious to continue a system of advancing money to enslave the recipient. This is quite a wrong impression and the exact opposite to actual fact. It is the labourer who demands money from the employer. Their objects in demanding money in advance, are in the first place that they may leave money with their families when leaving their villages and homes; secondly to pay off pressing money-lenders debts with their crushing and accumulated pile of interest; thirdly, as many of these come from long distance, their wish is that they may be sure of being taken on and employed regularly and not be treated as casual labour, which is dispensed with whenever the pressing need of their services is passed. Finally, but by no means an unimportant consideration is that all such advances are entirely free of interest and that good regular workers are entitled to certain allowances and remissions when returning to their homes.

The question of money-lenders and the interest they collect from the unfortunate victims is receiving the attention of the Government. It is most necessary that there should be some form of legislation to control extortionate rates of interest and methods of recovering the same. It might here be most strongly emphasised that any legislation for the total abolition of advances demanded by agricultural and plantation labour will most undoubtedly drive the labourer further into the debt of the professional money-lender, and would thus defeat its own object.

For some years past there has been concerted action on the part of the planting industry to reduce the amounts advanced to individuals. These have been greatly reduced. This has occasioned a good deal of grumbling and dissatisfaction by the labourer, but is now being accepted as inevitable. This will undoubtedly tend to improve the condition of the labourer and will reduce the losses of the employer that were inevit-

able under the advance system and be to the mutual advantage of both, labourer and employer, but all such measures must perforce be gradual, for age long customs cannot be swept aside by a stroke of a pen.

Mr. E. W. Fowke:—This resolution does not mention reducing advances to any particular sum at all.

The Chairman:—Do you wish to propose an amendment to the resolution, Mr. Fowke?

Mr. F. E. James:—May I make a brief statement, which, I think, will clear the air to some extent. The Government of India have under contemplation legislation for the abolition of all advances, but on my own representation they agreed to withhold such legislation for the present on the understanding that I can from time to time assure them that in point of fact, the advances are being reduced in Districts in South India. I drafted a circular which was sent out to all the District Associations and I had some replies, but not from all Districts. One of the letters awaiting me on my return from Home was from the Government of India reminding me of my promise to let them have a report and asking me whether I could bring a report to Simla with me when I go there next Saturday. They have under contemplation the ultimate abolition of all advances. They realize that they cannot do this all at once. They want the Industries to do this, but they will legislate. I will assure them that things are moving in the right direction from their point of view. If you can pass a resolution along these lines making it more specific—I think a figure of Rs. 10 has been suggested—it will help us a great deal.

Mr. C. R. T. Congreve:—We may say "to reduce advances to labour to a maximum of Rs. 10 per head" and leave out the words "and continue." Will that be definite enough for you, Mr. Chairman?

The Chairman:—Yes. The following is the amended wording of the resolution proposed by Mr. P. G. Tipping and seconded by Mr. E. W. Fowke:—

"That this Association approaches all Owners and Agents, European and Indian, of Tea, Coffee and Rubber Estates, whether members of a District Association or not, asking them to co-operate to reduce advances to labour to a maximum of Rs. 10½ per head in view of the necessity of falling into line with the recommendations of the Royal Commission on Labour."

The resolution was carried unanimously.

PERIODIC PAYMENT OF WAGES.

The Chairman:—I do not know whether any delegate has any resolution on this subject but I would like to put before you the latest information in regard to this matter. As you know, a Bill to regulate the payment of wages to certain classes of persons employed in industry was introduced into the Legislative Assembly on the 14th of February last, and after a considerable amount of discussion, a motion that the Bill be circulated for the purpose of eliciting information thereon, was adopted. In consultation with Mr. James, the Executive Committee replied to the Government of Madras that they approved generally of the principles underlying this Bill and suggested certain slight amendments to some of the clauses. The Bill in its first stage applies to the payment of wages to persons employed in any factory as defined by

the Indian Factories Act of 1911, but the Local Government may extend the provisions of the Act, subject to such relaxations as may be specified in the notification, to the payment of wages to any class of persons employed in any industrial establishment. The position is that it is possible that we may be forced to come into line with the other Industries at some future date. Has any delegate any resolution to move under this heading?

Mr. F. E. James:—I may say that the European group in the Assembly had this matter under very careful consideration and I have got a file consisting of opinions from all over the country. In connexion with this matter, two or three general observations have been made. One is that the period of payment should be extended to at least one month. The second is that Provincial Governments should not be given the right to extend the operation to any other Industry. That right should only be exercised by the Government of India. Those were the two main points which we proposed to make up to date. The third point is that the term "Industry" should be defined. The definition does not exist anywhere in any statute.

RUBBER TYRES FOR BULLOCK CARTS.

The Chairman:—I think Mr. England of Messrs: The Dunlop Rubber Co. (India) Ltd., wishes to address the meeting, with your permission.

Mr. England of the Dunlop Rubber Co. Ltd., then addressed the Meeting drawing attention to a new type of Equipment that had recently been introduced for use on Bullock drawn Vehicles. Having circulated a Booklet dealing with this Equipment Mr. England went on to say:—"I should like, in the first place, to express my deep appreciation for the privilege you have conferred upon me in permitting me to-day to address you upon a matter, which, I feel, will in the near future prove of the greatest interest to all Transport owners in this Country.

This latest development, which I have the pleasure to bring before your notice, is that of the application of Pneumatic Tyre Equipment for use on Animal drawn Vehicles.

This has been carried out with outstanding success in England, and almost all the large Milk Distributing Companies in London now deliver their supplies in carts fitted with Pneumatic tyred equipment.

It has also been extensively been taken up by Farming interests and it is now a common sight to see produce and cattle being transported on Pneumatic Tyres.

I venture to suggest that the time is not far distant when the old type of Farm cart will be superseded entirely.

To get back to my subject however.

My Company is making a serious attempt to place Transport on a better footing in India.

It is desirable that it should be so and that we should back up the admirable work which has been done by the Indian Roads Development Association.

The principal features of this new Equipment are:

That bigger loads can be carried (approximately 50% with the same tractional effort).

More work can be done with fewer Bullocks.
 Transport costs are considerably lowered.
 Ground impassable with ordinary carts is easily traversed.
 Carts of larger capacity and lighter construction can be used.
 A lower loading level can be obtained, etc.

The Brochure before you will explain these and the many other advantages to be derived by using this Equipment.

The Equipment provides for Pneumatic Tyres fitted to special Roller Bearing Wheels and Axles and it is possible to adapt to any purpose that is likely to be met with in INDIA.

Prices have been fixed at an exceedingly low level so much so that it is possible to convert an ordinary type Bullock cart for as low a sum as Rs. 140.

The cart which will be shown to you later has been produced at a cost of Rs. 160. Doubtless it will be possible to improve on this cost by mass production.

I should like to say that Government is very much interested in this new development and that numerous sets have been supplied to Municipalities throughout the Country.

The main point here is that, obviously attrition on road surface is reduced to the absolute minimum with a corresponding reduction in cost of upkeep.

If this Equipment is adopted for general use in this Country, special road surfaces for Bullock drawn traffic will be unnecessary.

It will also be apparent that an entirely new potential use for Rubber has been created and this will be of particular interest to Rubber Planters.

I should like to conclude by saying that a demonstration Vehicle is at present in Bangalore and your inspection is cordially invited."

On considering the matter the Meeting decided to agree to a demonstration at the Mayo Hall before the Meeting on Wednesday at 9.45 a.m.

Mr. L. Newcome:—May I ask Mr. England whether the rubber for this purpose is purchased in India or elsewhere?

Mr. England:—A great portion of the rubber is purchased in India and in Ceylon. We only grow about 30 per cent. of our requirements.

The Chairman thanked Mr. England for his remarks.

KODLIPET-SAKLASPUR ROAD.

The Chairman:—The Mysore Planters' Association have given notice of a resolution.

Mr. E. W. Fowke:—Mr. Chairman and Gentlemen, this resolution about the bad condition of the Kodlipet-Sakaravante-Saklasapur road was brought up last year and as a result of that resolution, the Mysore Government made a special grant of Rs. 3,000, but the trouble is that so far no repairs have been carried out. I wish, therefore, now to reiterate the resolution. The road in question is one of the leading roads between Mysore and Coorg and it should be made passable for cars in the rainy season. At present this section of the road is not passable during the monsoon. Mr. Langley has been over this road and he will testify to this fact. Since the road is of very great importance to us, we draw the attention of the Association to it. The resolution reads as follows:—

"This Association once more invites the attention of the Mysore Government to the condition of the Kodlipet-Sakrivasante-Saklasapur road, the main connecting link between Coorg and the planting districts of Mysore, the road being impassable to traffic during the rainy season."

The Chairman:—The resolution is moved by Mr. E. W. Fowke and seconded by Mr. J. S. H. Morgan.

The resolution was carried.

CHOLADI BRIDGE-OOTACAMUND ROAD.

The Chairman:—The Nilgiri-Wynaad Association have a resolution to move.

Mr. R. N. W. Jodrell:—With your permission, Mr. Chairman, I should like to move the following resolution:—

"This Association again urges on the Government the necessity of taking over the Choladi Bridge-Ootacamund Section of the Calicut-Ootacamund road from the Nilgiri District Board and placing its upkeep and control under the P.W.D."

This subject has been brought up before, and again I have to record that the present condition of the road is deplorable. We were advised in the Executive Committee's Report of the action they took on our last year's resolution. The Government have informed them that they are considering an estimate of Rs. 7.60 lakhs for thorough improvements to be carried out to this road. That apparently is the Government's reply to our request that the control and upkeep of this road should be taken over from the Nilgiri District Board. We are of the opinion that that is the very reason why this should be handed over to the P. W. D. It is for the purpose of seeing that that amount of money is really utilized for the improvement of the road. I would like to refer to the present condition of that part of the road which was taken over from the District Board and placed under the control of the P. W. D. some few years back. The result is that this section of the road is very much appreciated and the contrast between this and the section to which my resolution refers is extremely marked. We have often repeated here the fact that this is a trunk road and a very important one. I would like this Association, when representing this matter, to stress the fact that, as this estimate is being sanctioned, it is of the utmost importance that this expenditure should be left in the hands of the P. W. D.

Mr. C. R. T. Congreve:—I have much pleasure in seconding this resolution. I do not think the Government of Madras can possibly contend that when half of this trunk road has been given over to the P. W. D., the other half should not be given over to them. It is perfectly obvious that when they once made a start they wanted to go right through, and I think it will be a very strong argument for Mr. James to bring up that must have been their intention. I believe I am right in saying that when the question of the re-classification of the roads was brought up before the Government of Madras, the Chief Engineer strongly advocated that this road should become an Imperial Road under the P. W. D. If that is so, surely it is very necessary that this should be done now. The road is one of the main trunk roads in India. It is also, I believe, a military road of first class importance and

it passes through Wellington. Only a few years ago in the Moplah country there was a very serious rebellion. This road is very important therefore for taking troops along and should be kept in very good condition. I have therefore much pleasure in seconding this resolution.

The Chairman:—The resolution is proposed by Mr. R. N. W. Jodrell and seconded by Mr. C. R. T. Congreve:—

The resolution was carried.

KURUVANATH-AMMANAYAKANUR ROAD.

The Chairman:—The Central Travancore Association have a resolution to move on this subject.

Mr. W. A. J. Milner:—Mr. Chairman, I move the following resolution:—

"This Association would draw the attention of the Government of Madras to the state of the Kuruvanath Ammainayakanur Road which is slowly deteriorating year by year and will shortly revert to the appalling state in which it was in 1929-30 when Government, at the instance of this Association spent a large sum in bottoming and capital repairs."

I need not say much about this matter, as the resolution speaks for itself. The road is now reverting to a very bad condition, and we hope the Government of Madras will take the necessary action in this matter and that the road will continue to be kept in good condition. My Association would like to express their appreciation of all that was done by the U. P. A. S. I. particularly by the Planting Member, in the past as a result of which the Madras P. W. D. put it into first class order, but I believe it has now reverted to the District Board.

The Chairman:—The resolution before the meeting is moved by Mr. W. A. J. Milner and seconded by Mr. J. S. B. Wallace.

The resolution was carried.

RAILWAYS.

The Chairman:—Anamallais Association have a resolution to move on this subject.

Mr. J. C. Blackham:—I move the following resolution:—

"That this Association urges upon the Government of India the importance of the construction of the Pollachi-Vannanthorai Railway in connection with the development of trade and commerce in South India, and would draw the Government's attention to the advisability of proceeding with the construction of productive works while the cost of materials, etc., remains comparatively low."

The section from Pollachi to the Anamallais is a very important section for the railway. It will connect up our ropeway with the railway. Originally it was found that the construction of this railway was shown as first in the list, but since then other railways have taken its place and this railway has gone further down in the list. If we can get the U. P. A. S. I. to move in the matter and see that this railway is placed first in the list again, it will be a good thing.

The Chairman:—This resolution proposed by Mr. J. C. Blackham and seconded by Mr. J. S. B. Wallace, is before the meeting.

The resolution was carried.

Mr. W. A. J. Milner:—Could my Association have information regarding the likelihood of the work being taken on on the Cumbam Valley Railway?

The Chairman:—We have no information on that point, Mr. Milner, but I will ask the Secretary to write and ascertain and then let you know.

The Chairman:—Mr. Wallace, you have a resolution to move on behalf of the Nelliampathy Planters' Association.

Mr. J. S. B. Wallace:—I beg to move the following resolution:—

"That this Association desires to reiterate its opinion that the completion of the Kollengode-Trichur metre gauge line is essential to the development of Cochin Harbour and to the promotion of the commercial interests of the hinterland."

I am afraid I cannot tell you very much about it. The proposal is to continue this line and to make it into one main line.

The Chairman:—Mr. Wallace, could you inform the meeting whether that line has been surveyed or not?

Mr. W. K. M. Langley:—I think I can give you that information. I was discussing certain matters with the Finance Secretary to the Government of Madras the other day in Madras, amongst which this subject also came up, and he said that the Railway Board has most definitely turned down any idea of proceeding with this particular railway from Kollengode to Trichur, because they had made a survey which showed that there was no possibility of its being a paying project.

The Chairman:—In view of what Mr. Langley has said, you think there is any use pressing this resolution, Mr. Wallace?

Mr. J. S. B. Wallace:—There does not seem to be, but there is no harm in moving it.

Mr. F. E. James:—Does Mr. Wallace know what the recent attitude of the Cochin Durbar is towards this railway, because I remember when the matter was discussed at the Harbour Conference, the present Dewan said that the Cochin Government would put up the money for the whole of this railway. The Government of India do not attach any importance to it, but the Cochin State does.

Mr. C. R. T. Congreere:—A deputation from the Anamallais went down to see the Dewan specially on this subject, and he informed us that the Cochin Government were very keen on it. He said this is very essential as there was no railway from Kollengode right up to the Harbour, and that the Cochin Government was perfectly ready to put the whole of the money for this purpose. He also said that a few miles of the land through which the railway has to pass are in British India and they wanted to get the Government of India to allow them to take the line right through it.

The Chairman:—The Resolution before the meeting is proposed by Mr. J. S. B. Wallace and seconded by Mr. C. J. Madden:—

The resolution was carried.

The meeting then adjourned at 6 p.m., till 10 a.m., the next day.

Second Day, Tuesday, 15th August, 1933.

The Meeting re-assembled at 10 a.m.

The Chairman:—Before taking up the business of the day, I should like to welcome here to-day, on your behalf, Mr. Krishna Iyer, who is the President of the Indian Tea Planters' Association, Travancore. He has come up here to-day at great personal inconvenience and we are very pleased to see him present at this meeting. It is the first occasion, I think, on which the President of this Association has ever attended one of our meetings and we hope that in future years we will see more of the members of the Indian Tea Planters' Association at our Annual General Meeting. (Applause).

TEA REGULATION OF EXPORTS

The Chairman:—A resolution has been tabled by the Mysore Planters' Association. I shall be glad to hear the Mysore delegate speak on this subject.

Mr. L. Garrett:—The Mysore Planters' Association gave notice of a resolution proposing to fix a minimum Best Crop Basis rate per acre for all Tea Estates.

We have proposed this resolution for the purpose of having a general discussion at this meeting. In Mysore we know practically nothing about the working of the tea restriction scheme. Since I have been down here, I have heard very much more than I have had any idea of hitherto. As a District we have a very great grievance. We do not want to ventilate that grievance or to cause any undesirable criticism of the tea restriction scheme, and after hearing the general discussion, we will, in all probability, withdraw this resolution. But we should like to hear the opinion of our representatives on the Licensing Committee to see if there is any possibility of getting any redress to our grievance and we should also like to hear whether anybody else here in South India is in the same boat as ourselves.

Tea development in Mysore more or less commenced from the year 1925, and the largest proportion of our Clearings was planted during the years 1926 and 1927. Of the 6 different concerns which commenced planting Tea, only two have so far got Factories working, and three others have got Factories in the course of construction, and the net result has been that none of us has been able to claim a fair crop basis for our Tea areas planted in 1926 and 1927. This has been partly due to the fact that Tea probably grows more slowly in Mysore than it does in other districts, and our 1926 and 1927 Clearings gave but little crop in 1932, which we have had to take as our best crop year, and partly because many of us had no Factories ready for manufacture by 1932, and so have not been able to claim any crop allowance for the Clearings just mentioned.

As regards the allotment under the restriction scheme for 1928 and subsequent Clearings, we are perfectly content with the scale as laid down by the Licensing Committee, but we ask that the 400 lbs. per acre allowance for 1928 Plantings may be extended as a minimum Best Crop Basis for our 1926 and 1927 Plantings, so as to ensure us getting a fair deal.

Our Tea interests have invested their Capital in the Industry in Mysore in the past, just the same as other interests have done in other districts, and therefore they have every right to expect that conditions under the Restriction Scheme will be such as to permit them to carry on their businesses; this for the majority of us is not possible, and unless some modification such as we suggest is made, it will not be possible for the majority of these Mysore Tea Estates to come into bearing, as in many cases our allotted quotas are only just over 100 lbs. Tea per acre. We do not want to have to appeal to the Government of Mysore to help us, although we feel quite convinced that they would do so, because we do not want to appear to offer any adverse criticism to the working of the Tea Restriction Scheme as a whole, and thus possibly arouse the interests of some of the Politicians of this country. So we appeal to you, gentlemen, to accept our statement that present conditions are such that most of us cannot profitably bring our Tea areas into bearing, and we ask you to pass this resolution so as to give us and others like us a fair deal.

Well, I have told you our point of view. There is a distinct danger in the position. It may be that the interests concerned which control these tea estates may force us—I do not suggest they will—to appeal to the Government of Mysore, in which case, the whole thing will mean undesirable publicity. So we hope that you will offer us some hope in this year, or perhaps in the next, or sometime in the future, that there will be some modification in the present scheme which may help us to meet our case. That is all I have to say.

The Chairman:—As a member of the Licensing Committee, would you be prepared to reply to Mr. Garrett, Mr. Congreve?

Mr. C. R. T. Congreve:—Mysore is not alone in regard to this grievance. There are other cases also in South India and I understand a considerable number in Northern India and I want to make it perfectly clear that the Licensing Committee, which has been appointed by Government, have no powers whatever to consider any cases of that sort. Their sole duty is to issue a licence according to the Rules laid down. They have been given no latitude one way or the other. It therefore appears for the present that it will be impossible to make any alterations in the existing rules. Whether it will be possible to do so next year I am unable to say, but I can assure you that at the present time we have no power whatever to make any alterations in the rules laid down.

Mr. L. Garrett:—May I ask Mr. Congreve whether he considers that it would serve any useful purpose if we drafted a resolution asking the Licensing Committee to make some modifications for next year?

Mr. C. R. T. Congreve:—I do think that if all the grievances were collected, we might represent them at the next annual meeting of the Licensing Committee in Calcutta, and find out whether there is any possibility of our making any modification next year. I am quite sure Mr. Wallace will join me in putting forward any representation for that purpose. I hope everybody will send in to Mr. Lloyd the particulars of their cases.

The Chairman:—Does that satisfy you, Mr. Garrett?

Mr. L. Garrett:—Not quite, Sir. Mr. Congreve is asking for individual cases. Is he not prepared to consider a mass application from the district as such, or from a District Association?

Mr. C. R. T. Congreve:—Yes, certainly.

The Chairman:—Does that meet your case, Mr. Garrett?

Mr. L. Garrett:—Yes, I think so, and with the permission of the meeting, I will withdraw the resolution which was originally tabled.

The resolution was by leave withdrawn.

Mr. W. A. J. Milner:—Might I ask as to when the returns may be expected to be complete, and also how much time will be given to Estates to fill up and send in their Best Crop Basis returns?

Mr. C. R. T. Congreve:—With regard to the first point, I believe I am right in saying that the returns from Northern India are now practically complete, but in South India there are estates which have up to date sent in no returns. It is hoped that the final figures may be ready by the end of September, but that must entirely depend upon as to whether those Estates that have not sent in their returns, will take the trouble to do so before then. It is purely a matter for the Estates themselves to take the trouble of filling in a simple form, without which it is impossible for the Licensing Committee to complete their figures. All Estates have been reminded many times, but some of them taken no notice whatever.

Mr. W. A. J. Milner:—Cannot those Estates which have not sent in their returns be given a certain date within which to send in their returns?

The Chairman:—I do not think it is within the scope of the Licensing Committee. I speak subject to correction—that those estates which have not sent in their returns should be given a date within which time to send in the same.

Mr. C. J. Madden:—May I suggest that the Honorary Secretaries of the District Associations be asked to co-operate in this matter and, I think, if they really try that they can get the returns filled in very soon.

The Chairman:—I think the Honorary Secretaries of the District Associations should be approached in this matter. I do not know whether that has been done.

Mr. C. J. Madden:—There is one other point, about the Clearings. I know of several estates that are taking advantage of the present south-west monsoon to continue planting. I am talking of Travancore. Could the members of the Licensing Committee let us know exactly what the regulation is with regard to this point?

Mr. C. R. T. Congreve:—With regard to that, I may say that we have under consideration the Government of India Bill regulating the export of tea and, I think when the provisions of the Bill are being discussed, you will get a full reply to your question.

The Chairman:—If there are no further questions to ask, I shall ask Mr. James to briefly explain the provisions of the Bill which will be brought before the Legislative Assembly in September.

INDIAN TEA CONTROL BILL

Mr. F. E. James:—The Bill is called the Indian Tea Control Bill and it is to remain in force until the 31st of March 1938, that is, five years from the commencement of the international agreement. The Bill is divided into three chapters.

The first chapter deals with the constitution and the functions of the Indian Tea Licensing Committee. I do not think there is anything I need

say in that connexion, because you are all aware of the constitution of the committee and what its general functions are. Only one thing I should like to point out, and that is, Clause 9 gives to any member of the Committee or any officer of the committee authorized by it, at any reasonable time, the right to enter upon and inspect the land of any tea estate. So no Planter has the right to obstruct Mr. Congreve as long as it is reasonable for him to enter upon a tea estate and inspect the land. There is one other point which causes some alarm. The Governor-General at any time may dissolve this committee. That will not be done until they have completed their work, but when the committee is dissolved under this Section by the Governor-General or as a result of the lapse of time, the unexpended balance of fees which has been received by the committee under the Act, will lapse to Government. That is distinctly unfair.

The second chapter deals with the control over the export of tea and it lays down that no tea shall be exported by land or by sea or overseas to a foreign country or to a French or Portuguese Settlement in India until it is covered by a licence issued by or on behalf of the committee. Then it fixes for this year what is called the Indian overseas export quota, that is the amount fixed for the amount of tea that can be exported is 320,570,560 lbs. In each succeeding year under the agreement, the export allotment will be declared by the Governor-General in Council by a Notification after consulting the Licensing Committee and paying regard to all the interests concerned. So that that allotment may, in succeeding years, be modified or changed. Then the export quota of every tea estate is to be fixed by the committee, but the total of all export quotas is not to exceed the Indian overseas export allotment. Then there is the usual provision in regard to the procedure to be adopted after obtaining an export licence and in granting an export licence. All that part is familiar to you now and I need not go into details. There is also provision for a special export licence, that is to say, where at the end of the financial year an estate has not used the whole of its quota, it may between the end of the year and the 30th day of June, provided it makes an application within fifteen days' time after the end of the year, ship under a special export licence the unexported balance of their allotment for the previous year, which had not been exported by the 31st March. Then with regard to penalties any person exporting or getting out of the country tea without a licence, is subject to the ordinary penalties under the Sea Customs' Act, which, I believe, include a certain length of imprisonment. One important point may be borne in mind, and that is, there is no appeal from the decision of the committee in regard to the refusal of or the granting of any export licence, so that there is no recourse to a court of law for litigation.

The third chapter deals with the control over the extension of tea cultivation and it provides in the first instance, that so long as the Act remains in force, that is to say for five years, no one shall plant tea in any land which was not planted with tea on the 31st March this year, except by a written permission or permit obtained from or granted by the Licensing Committee. It lays down that even such permits cannot be given in excess of a total quantity not exceeding 3,612 acres for the whole of India, less any amount which has been planted with tea between the 1st of April and the coming into force of this Act. It provides that any application for permission to plant tea on any land for the first time, must be made to the committee with a clear statement laying forth all the special circumstances justifying the application. The committee may grant that application or may refuse it. If a person making the application feels aggrieved by the decision of

the committee, then he may within sixty days from the date of the order, appeal to the Local Government, and the Local Government has power to revise the order of the Licensing Committee in that regard and may modify, suspend or endorse the order of the committee. The records of the committee in regard to this particular matter must be very full and must be open for inspection by Government officers from time to time. If an appeal is made by an applicant who feels aggrieved under an order of the committee, the committee must furnish to the Government a full account of its proceedings giving the reasons for the action it has taken. Whoever contravenes this Section of the Act by planting tea in contravention of the agreement which is laid down, shall be punishable with a fine which may amount to from Rs. 10 to Rs. 1,000 for the first offence and Rs. 5,000 for any subsequent offence. If a person is convicted by a Court for having contravened this Section, he may be ordered to root up any trees which have been planted over and above the allotment, and if he is not willing to do so, the Government may order its own officers and tear up all the tea bushes which have been so planted. No Magistrate, other than a First Class Magistrate, can take cognizance of any of these offences. He can take cognizance of such offences if the complaint is made either by a person authorized by the Licensing Committee or by a person authorized with the previous sanction of the Local Government and in no case the Licensing Committee has to undertake the prosecution under this Chapter of the Act.

Mr. C. R. T. Congreve:—I have received a copy of this Bill only to-day from Calcutta and the Government require an expression of opinion by not later than 20th of this month. It will, therefore, be necessary for us to wire to the Indian Tea Association, Calcutta, any objections that may be made. I suggest that you, Sir, and Mr. James, together with the members of the Licensing Committee, go into this question and send a wire after hearing everybody's views.

The Chairman:—You have just heard what Mr. Congreve has said and the suggestion he made. Any comments on the Bill we would welcome, and if you approve of the suggestion that the matter be left in the hands of the Executive Committee, they will wire to Calcutta, bearing in mind your views on the question. You have just heard the terms of the Bill; have you any comments to make?

Mr. R. N. W. Jodrell:—Would it be possible for us to hear the decision which the Executive Committee arrives at before the wire is sent to Calcutta? In other words, could they be formed into a Sub-Committee to go into the matter, and place the various recommendations that they make before this meeting for consideration.

The Chairman:—The Executive Committee went into this question yesterday and I will now ask Mr. James to state briefly the various objections that we saw in the Bill. But there may be further objections which this meeting may wish to emphasize.

Mr. F. E. James:—Some of these are not objections, but questions which we want to ask before giving our final opinion. In the first Clause of the Bill, there is a Section headed "definitions" which defines Tea and in the Chapter relating to control over the export of tea mention is made of "tea dust". You want to make sure of the meaning of the phrase "tea dust". Then in regard to the dissolution of the committee, we raised a very natural question as to whether it is fair for the unexpended balance of fees received by the committee to lapse to Government on the dissolution of the committee? I think the feeling of the Executive

Committee was that any balance unexpended should lapse to the Industry itself and not to the Government. The third point which was raised—and this is more a query than an objection—was in connexion with the right of the owners of tea estates to transfer in whole or in part their quotas. It is understood that this question is being discussed more actively in Ceylon.

Then in regard to extensions, the Committee suggested that the regulations regarding extensions should take effect not from the 31st March as in the Bill, but from the date of the commencement of the Act. The effect of that would be that any extensions which have been planted between the 1st of April and the commencement of the Act, would not be taken into consideration in assessing the total number of acres allowed in the agreement. An alternative to making the actual regulation of extension date from the commencement of the Act, is to take the date which, I think, has been fixed by Ceylon, and I suggest that India should adopt the same date which Ceylon has adopted—that is in June. Those are the main points raised by the Executive Committee.

The Chairman:—Are there any other points which the Meeting wish the Executive Committee to bring to the notice of the Government of India?

Mr. R. N. W. Jodrell:—I do not know whether there are any more points, but may I ask with regard to the query of the transfer of quotas, whether your proposal is to prevent the transfer of quotas? If the answer is in the affirmative, I would like to point out that it would be necessary for us to see that the transfer of quotas from estate to estate within one company is still allowed.

The Chairman:—The question you just raised, Mr. Jodrell, is rather an important one and is one which the Executive Committee on its own initiative cannot possibly decide. It is a question for the delegates in this room to decide. The Executive Committee did not consider for one moment that the transfer of quotas between companies should ever be put a stop to. The only question that arose was whether the purchasing of quotas should not be abolished so as to be in uniformity with other countries. Ceylon, as you know, are now considering the prohibition of the sale of quotas. Java has already done so. This is not a question for the Executive Committee. They cannot take the onus on themselves and we should like to have the ideas of delegates on this point as to whether you consider that the purchasing of the quotas should be continued?

Mr. T. E. Howe:—Are we to understand that the Committee is opposed to the sale or the exchange of quotas between one individual concern and another?

The Chairman:—No, the Committee were not opposed to it.

Mr. Howe:—We have considered the advisability of all tea producing countries being on the same level and having the scheme uniform throughout in all three countries. In one country definitely quotas are not transferable, and the sale of quotas is not permissible. In Ceylon the matter is still under consideration. I think there is a strong movement to prevent the sale of quotas in future and we think it would be as well to have a uniform scheme throughout the tea producing countries.

Mr. Eric Hall:—If any steps are taken in the future to put a stop to this exchange in the sale of export quotas, I consider that such rules should not come into force for this current year, but only from the 1st of

April next year; otherwise it is placing those people who may have export quotas for disposal at an unfair disadvantage in regard to those estates that have already managed to dispose of them. To my mind it is rather an essential feature that any legislation in that respect should not come into force during the current year.

The Chairman.—I think the first point to consider is whether the meeting is in favour of the continuation of the sale of quotas? When we come to a decision on that point, then we will consider the point you just raised. That point would not arise if the meeting is in favour of the continuation of the sale of quotas.

Mr. C. J. Madden.—The original circular issued by the Indian Tea Association definitely laid down that quotas were for sale and transferable and on that many tea estates—some are estates which are not represented here—signed their agreement to the scheme. I think this question needs a great deal of thought.

Mr. J. S. B. Wallace.—I do not see that there is any possibility of getting that rule altered this year. It is one of the integral parts of this scheme and I do not see how it could possibly be altered this year. Even Ceylon will not alter it. But if this meeting is not in favour of it, we might put it up to the Licensing Committee, and suggest that it might be stopped as from next year. Personally, I am not against it.

Mr. E. N. Pinks.—I am of the same opinion.

Mr. W. A. J. Milner.—We have already expressed our opinion with regard to that.

Mr. A. K. Weld Downing.—The same remark applies to the Nilgiris.

Mr. R. N. W. Jodrell.—I agree that it is impossible to change the procedure this season, but I do feel that it would be in the best interests of the scheme if, after sufficient notice has been given, to make quotas transferable only within the companies. That is to say, if quotas are to be made out in the name of the estates and not in the name of the companies, permission must be given to transfer the same from one estate to another within the same interest.

Mr. J. C. Blackburn.—I agree with what Mr. Jodrell has said.

Mr. T. E. Howe.—My opinion is that in the case of a company possessing a number of estates which is one concern, most certainly the export quota should be transferable from one estate to another within the same company. In regard to the sale of export quotas from one company or one concern to another concern, personally I am opposed to it. I do not see there is any great advantage in it. It is placing additional work on somebody's shoulders in arranging for the transfer of these quotas, and after that, if a man finds at the end of the year that he has got export quotas to spare, he is always in a position to come into the Indian market, buy tea and ship it home on his own export quota. The sale of the export quotas is not in the best interests of the export scheme.

Mr. W. H. Millar.—I am in favour of the continuation of the sale of quotas.

Mr. W. K. M. Langley.—After very careful consideration, I certainly think that the Industry as a whole must be canvassed on the subject and that the matter cannot be decided at this meeting. It seems to me that

the simplest way of dealing with this matter would be to make the export quota transferable. After all, the whole basis of the scheme is that not more than 320 million pounds of tea shall be exported from India, and so long as that is not exceeded it does not very much matter as regards the internal commercial transactions which are going on satisfactorily presumably to both parties. The matter needs careful attention, but, in any case, the rule should not be brought into force during the current year, as there are large contracts on hand.

Mr. L. Garrett:—I consider that it is absolutely impossible to do this unless there is going to be complete uniformity in the method of working this tea restriction scheme in all the tea producing countries. You mentioned the case of Java. If my memory serves me right, the scheme is worked very differently in Java than in India. I believe there the factory is made to deal with export and not the estate, and that leads to an entirely different calculation altogether. If everybody agrees to the working of the scheme in the same way then it is all right, but at the present moment if we are to agree to one method and other countries make different arrangements altogether, it strikes me that the output in India might turn out to be considerably less, whereas the output of the other countries might be more or less their full allotment.

Mr. E. W. Fouke:—I think we ought to get into line with Ceylon.

Mr. E. Hall:—Ceylon is in the same dilemma as we are at the present moment, and I think that the final finding will be that the method of procedure in force at the moment will not be interrupted until the end of the present year. I do not see how we can interfere with the business which has already been done this year in the purchase of quotas, and we will be in the same position as Ceylon finds itself in.

Mr. Krishna Iyer:—I am of the opinion that there might be very grave irregularities in the allotment if quotas are to be sold and now we find that Java and Ceylon are of the opinion that quotas should not be allowed to be sold. No doubt on the basis of the original scheme business has been transacted. So far such business as has been transacted may be regularized, but, in future, legislation might be undertaken that further quotas might not be allowed to be sold.

The Chairman:—The feeling of the meeting obviously is that the present is not the time to come to any decision on this subject and I will ask Mr. James if it is possible to insert a clause in this Bill providing for the prohibition of the sale of quotas if it be found desirable to do so at some future date. Will that meet the case? I will ask Mr. James to suggest the clause which we might put in.

Mr. F. E. James:—It would be quite easy to make the clause relating to the transfer of quotas applicable in the Bill to the present year only, and to add an additional clause to the effect that the question of the transfer of quotas in succeeding years will be decided by the Governor-General in Council by a Notification in the Gazette, after consulting the Licensing Committee and paying due regard to all the interests concerned. You can put in a similar clause to the present clause which is in connexion with the overseas allotment of exports. The effect of that will be that it will be left to the Licensing Committee to decide as to whether export quotas should be transferable in the future years, leaving the position as it is at the present moment.

Mr. R. N. W. Jodrell:—Is it possible for the U. P. A. S. I. to refer the matter to the estate owners throughout South India and

obtain their opinion in the current year in order to give notice if the sale of quotas is to be prohibited?

The Chairman:—The only idea in inserting this clause is that it will put you in a position, or rather put Government in a position, to bring it into force should it be the desire of the Industry. If you are going to make an amendment at a later date, I think considerable difficulty will be experienced. But if you insert this clause it will do no harm.

Mr. Eric Hall:—Is it possible that the sale of quotas if prevented, will prevent the transfer of quotas between one concern and another?

Mr. F. E. James:—That position could be easily protected by the wording of the clause. I agree that that will have to be done, but it will only be a matter of drafting.

The Chairman:—The position is, do you wish such a clause to be inserted or do you wish the provisions of the Bill to remain as they are drafted?

Mr. R. N. W. Jodrell:—I should like an effort to be made for such a clause to be inserted.

The Chairman:—I will take the opinion of the meeting. The feeling of the meeting is that clause should be inserted as has just been suggested. It now only remains for the Executive Committee to forward their views to the Government of India before the 20th of the month. We wanted something to go on, and I cannot see that the clause in question is going to do any harm. There is no danger in it.

TEA RESTRICTION OF OUTPUT

Mr. C. R. T. Congreve:—Mr. Chairman and Gentlemen, I should like to propose the following resolution:—

"That this Association notes with regret that certain Companies and Estates have so far refused to agree to the scheme for reduction of Tea Crop, and hopes that in view of the grave situation which will undoubtedly occur if the very large potential supplies of tea bound to be available without restriction are thrown on the Indian Market, they will agree to join the scheme."

There seems to be a certain amount of misunderstanding with regard to the various circulars that have been issued from time to time dealing with the reduction of tea crop. The circulars, if one studies them, give all the information you require, but they take a good deal of study, and I have found in the course of the last few months various people giving different figures and therefore coming to wrong conclusions. As you all know the export quantity has been definitely fixed at 320,500,000 and odd pounds. I do not propose going into small figures. Taking the crop likely to be harvested in India in the current year, there will certainly be a minimum excess after exports of 30 million lbs. and very probably the figure may reach 120 million lbs. Now, gentlemen, I put it to you that it will be quite impossible for that quantity of tea to be absorbed in India. If you look at the figures of the present consumption, you will find that they work out at 65 million lbs., from which must be deducted about 9 million lbs. produced in the Shan States and which is sold practically entirely in Burma. This brings the figure down to 56 million lbs. From this

figure it is necessary to deduct $4\frac{1}{2}$ millions which is at present exported over our land frontiers. So that $51\frac{1}{2}$ million lbs., is the present consumption of tea grown in India and imported into India in the past. Under the scheme proposed for the restriction of crops 59 million lbs., will be made available for sale in India, but from this has to be deducted the $4\frac{1}{2}$ million lbs., which are still exported over the land of the Frontiers. This brings us to the final figure of $54\frac{1}{2}$ million lbs., which, if the scheme is accepted, will be available for sale in India or an increase of 3 million lbs. over what is at present available for consumption in this country. The Indian Tea Cess Committee who have taken a great deal of trouble to increase the consumption of tea, have come to the conclusion that due to the present economic condition of the country sales are not increasing to any large extent, and after very careful consideration the Authorities in Calcutta have come to the conclusion that this 3 million lbs., should be ample to cover the whole of the excess quantity required to cover increase of consumption in this country. An assurance, however, has been given to the Government of India that ample supplies shall be made available, and if it is found that this extra 3 million lbs., is insufficient, further supplies will be released. Our endeavour in this country should be to increase the consumption of tea in all possible ways, but unless some restriction of crop is brought into force, it is perfectly evident to everybody that we shall see a glut in the Indian market, which cannot possibly consume 80 or 120 million lbs., with the result that prices must fall and a great deal of tea must become unsaleable.

In this connexion I should like to touch on the political aspect of it. You must all realize that the Government of India first have to look to the interests of their own people. By that I mean the rupee companies whose share-holders are in India and the Indian-owned estates. They naturally must consider these people before they consider the companies in England, or elsewhere, whose share-holders mostly live in other countries, and there is a great possibility that if it is pointed out to the Government of India that the restriction of the export scheme is bound to flood the Indian market, with the result that the tea will become unsaleable, and that these small rupee companies and Indian owners, who in the past have always sold their goods in India, are likely to be ruined unless the restriction of crop is agreed to, the Government of India, may, I think, hesitate to let the Indian Tea Control Bill go through. I only speak about it as a possibility and not as a probability. I do feel that it is up to every Planter in India to co-operate to save the Indian market. The Indian market has for a great many people been their only market.

I understand that in Northern India a very large percentage of tea has agreed to the restriction of crop, but in South India the response has not been so good. These are certain people who say that they will not agree to the restriction of crop, because ruin will stare them in the face if they do. I would ask them to consider if ruin is not more certain if they do not agree to this scheme. This resolution has been tabled to try and get those interests and estates to agree to a voluntary restriction of crop, and I trust every one of you in this room who have not agreed yet will go back to your districts and use every possible endeavour to come into this scheme at the earliest possible moment.

Mr. J. S. B. Wallare:—I have very great pleasure in seconding Mr. Congreve's resolution. Mr. Congreve has spoken very ably; every-

one has heard what he said and I do not think I can add anything to it. I sincerely hope that the effect of this resolution will be that those who have not come into this scheme will do so now.

The Chairman:—If I may do so, I should like to congratulate Mr. Congreve on the very lucid and powerful speech he has made in favour of the restriction of output scheme. I can add nothing at all to what he has already said because he has covered the whole ground so very ably. But I should like to draw your attention to the address that the Hon'ble the Resident gave us yesterday. He himself realizes the importance of this scheme going through and it is obvious, or should be obvious to us, that, if a person unconnected with our Industry can see the importance of this scheme, surely all of us should realize far more so how imperative it is that the scheme becomes a "fait accompli".

Mr. Eric Hall:—I agree in most part with what Mr. Congreve has said, but a point which requires consideration is the percentage of the restriction of crop. That has not been mentioned. A total of 77 per cent. is allowed for the export of quotas plus 12 per cent, except in the case of those estates which produce under 80,000 lbs., who are allowed a further 10 per cent. The result is that a majority of the estates who have bought export quotas are likely to suffer a loss. I think that a little more latitude should be granted and the crop to be harvested increased slightly, so that we will have a better chance of extending the sale of tea at a lower price to those who cannot afford the price of 5 annas and 6 annas. Tea is one of the things in India which is not procurable by millions of people. I say that without fear of contradiction. If we want to go into the matter of the cost of advertising tea, we have only got to take the increase in the consumption of tea in India and the increase in the consumption of tea in America and we will find that the increase has cost us about 4 or 5 annas per lb. I think the figure 77 per cent. should be slightly increased.

Mr. C. R. T. Congreve:—The only point on which we can base the consumption in India and as to whether it is likely to increase is on the figures obtained from the Indian Tea Cess Committee. They have definitely stated that to the best of their belief at the present time the consumption of tea is increasing very slightly, if at all, and I believe that they are correct. Mr. Hall has suggested that tea should be sold below the cost of production. That may be all right for large concerns with big resources who can afford to do it, but I should like to put before you the point that there are many estates who cannot afford to sell tea at a loss in this country, and it seems to me that we have got to guard their interests and see that they get fair treatment, and the only way to do that is to keep the stocks in this country at a level which is within its capacity to consume. If you are going to sell tea at 2 or 3 annas a lb., you are bound to be doing so at a heavy loss, and whilst the big companies might carry on, the others will not be able to do so and will be ruined. It is, therefore, essential to fix a price which will cover the cost of production and, I think, 77 per cent. production allowance should be ample this year, on the understanding that if it is found insufficient more tea will be released. That is a definite assurance that has been given to the Government of India by the Indian Tea Association. They will not starve the market. So I think it is quite safe to leave the matter in their hands.

Mr. C. J. Madden:—I should like to say that a meeting was recently held in our district at which Mr. Congreve very kindly spoke. Several

estates and companies were represented and Mr. Krishna Iyer, President of the Indian Tea Planters' Association, was also present. All the little points and objections were gone through, several questions were asked and answered very ably by Mr. Congreve and the result of that meeting, I think, can be described as most satisfactory. We are very grateful to the U.P.A.S.I. for sending down Mr. Congreve and we should like to hear of other Associations arranging similar meetings.

Mr. W. H. Millar:—Is this proposal to take effect from the new year?

The Chairman:—The scheme dates as from the 1st of April. I take it, Mr. Miller, that you would be in favour of the scheme if the date was advanced slightly?

Mr. W. H. Millar:—No; I am not in favour of it.

The Chairman:—The resolution proposed by Mr. C. R. T. Congreve and seconded by Mr. J. S. B. Wallace, is before the meeting.

The resolution was carried with one dissent, Mr. W. H. Millar of Tea Estates India Ltd., Coimbatore.

INDIAN TEA CESS COMMITTEE

The Chairman:—It is unnecessary for me to introduce to you Mr. W. M. Orton, the Indian Tea Cess Committee representative in Southern India. Mr. Orton will now address the meeting.

Mr. Orton:—The work which has been carried on during the year under report may be grouped under four headings:—

1. Towns, Bus Routes and Shandies.
2. Exhibitions.
3. Bulking and packing tea for propaganda work.
4. Bad and Imitation Teas.

1. *Towns, Bus Routes and Shandies:*—During the six months, July to December 1932, six demonstration parties continued the work in villages and shandies which was commenced in June 1931. In December, one party which had not been equipped with a bus, was disbanded and work in villages was discontinued. In January the five remaining parties, each equipped with a bus commenced work in the larger towns. During the six months, January to June, our propaganda was introduced into 52 towns and 58 subsidiary towns, that is, smaller towns worked from larger centres. The total number of towns worked was 154, which comprise the chief business centres in eight districts, Salem, Coimbatore, Trichinopoly, Tanjore, North and South Arcot, Chingleput (including Madras) and Chittoor in the Madras Presidency, and in Mysore State and Coorg. 1,951 dry tea shops and 174 liquid tea shops, hotels and restaurants were supplied with B. P. tea. The majority of the liquid tea shopkeepers prefer and use dust tea. A few use fannings. Very few use leaf tea. Over 95 per cent. of the tea used in restaurants and liquid tea shops is dust.

Each demonstration party is equipped with three tables, stoves, kettles and crockery. These tables are moved from place to place in bazaars and residential quarters and demonstrations "How to prepare tea" are given. Megaphones are used to attract a crowd. After a demonstration has been given and the prepared tea has been distributed

free, handbills are distributed and pice packets and red bags containing 1 lb., $\frac{1}{2}$ lb., $\frac{1}{4}$ lb. and 2 oz., are sold amongst the crowd. Every house in the vicinity is then visited and canvassed. 15,712 such demonstrations were given during the year and 78,660 cups of tea were given away. 306,745 pice packets and 4,032 lbs. in bags were sold to the public. After creating a demand for tea by the consuming public by these demonstrations, shopkeepers were then visited and induced to stock tea to meet this demand. During the year 71,850 lbs. of B. P. tea in 20-lb. boxes was supplied to dealers, and we have assisted these dealers by re-distributing 28,149 lbs. amongst smaller shopkeepers. Attractive paper posters were fixed on the walls of the shops wherever space was available and enamel good tea boards were placed in prominent positions in front of the shops.

All the main bus routes in the districts mentioned above have been covered by our parties. Demonstrations were given at bus stands and bus halting places, and many restaurant keepers were induced to provide liquid tea for bus passengers. Hot tea boards were fixed in prominent places in front of these restaurants and tea shops. These boards may be seen by anyone travelling along these roads.

All important shandies which were being held when parties were in the vicinity were visited and in several instances our demonstration work was the means of inducing refreshment stall keepers to introduce the sale of liquid tea, and other stall keepers to sell dry tea.

2. Exhibitions:—Demonstration stalls were maintained at ten exhibitions. At these stalls people were shown how to prepare good tea and the liquid tea prepared was distributed "Free." 1,323 demonstrations were given and 7,731 cups of tea were distributed. Samples of distributors' and gardens' teas sent to us for this purpose, were displayed. 14,528 pice packets and 759 lbs. in tins and bags were sold. At six exhibitions a Model Tea House was maintained in addition to the Demonstration Tea Stall. Our object here was to show how a liquid tea shop should be maintained and how this could be done at a profit even when selling 5-oz. cups of tea for half an anna. These stalls attracted a large number of people and in all 16,101 cups of tea were sold. Twelve gold medal certificates and two certificates of merit were awarded to the Indian Tea Cess Committee by the different Exhibition Authorities for the "Best method of Advertising Tea".

The Exhibitions attended were:—

1. July 1932—Rajahmundry, Godavary, Pushkaram Swadeshi Exhibition—Model Tea House and Demonstration Tea Stall.
2. August 1932—Tuticorin "Buy Indian League" Exhibition—Model Tea House and Demonstration Tea Stall.
3. September 1932—Madura "All-India Swadeshi" Exhibition—Model Tea House and Demonstration Tea Stall.
4. October 1932—Mysore "Dasara" Exhibition—Demonstration Tea Stall.
5. November 1932—Tellicherry "Health" Exhibition—Demonstration Tea Stall.
6. December 1932—Madras Park Fair and Exhibition—Demonstration Tea Stall.
7. February & March 1933—Kumbakonam All-India Mahamagam Fair and Swadeshi Exhibition—Model Tea House and Demonstration Tea Stall.

8. April & May 1933—Madura "All-India Swadeshi" Exhibition—Model Tea House and Demonstration Tea Stall.

9. June 1933—Conjeevaram Garudotsavam Festival "Buy Indian League" Exhibition—Model Tea House and Demonstration Tea Stall.

10. June 1933—Tiruppur Cattle Fair and Industrial Exhibition—Demonstration Tea Stall.

3. **Bulking and Packing Tea for propaganda work:**—During 1932 the supply of tea for propaganda work was arranged by the Hony. Secretaries, District Planters' Associations through the Secretary U.P.A.S.I. This tea was supplied direct from estates at As. 6 per lb. F.O.R. Bangalore, packed in 20-lb. patent lead lined chests. After being bulked to destroy its identity it was repacked in the same chests. This method of obtaining tea was discontinued in January, when it was decided that supplies should be obtained by calling for tenders through the "Madras Mail" and the "Planters' Chronicle". 24,445 lbs. tea (21,365 lbs. from Estates subscribing to the U.P.A.S.I. and 3,080 lbs. from non-subscribers) was obtained in this way in April, and this has been sufficient to meet our requirements up to date.

In April a 5-lb. tin was introduced in addition to the 20-lb. chest. Tea required for packing in these tins was obtained in full sized chests at As. 5-3 per lb. These tins had to be packed in wooden boxes each containing 4 tins. The cost of these tins and boxes worked out at As. 1-9 per lb.

Tea in chests has been sold to dealers at from As. 6-6 to As. 8 per lb. according to the amount purchased and tea in tins has been sold at As. 7-6 to As. 8-3 according to the amount purchased.

The amounts actually sold monthly have been:—

July	1932	..	..	5,260 lbs.
August	"	..	..	5,206 "
September	"	..	..	5,254 "
October	"	..	..	4,100 "
November	"	..	..	5,100 "
December	"	..	..	3,017 "
January	1933	..	..	7,890 "
February	"	..	..	5,752 "
March	"	..	..	8,141 "
April	"	..	..	6,865 "
May	"	..	..	6,795 "
June	"	..	..	7,230 "

4. **Bad and Imitation Teas:**—During the first half year, July to December, one inspector was engaged whole-time on the detection of bad teas. The second inspector was engaged part-time on this work. The 17 towns in the Presidency where the Madras Prevention of Adulteration Act is in force were regularly visited. Doubtful teas were brought to the notice of the health authorities who took samples of these and submitted them to the Public Analyst for testing. In his report for the year ending 30th September 1932, the Public Analyst states that 469 samples were received by him for testing. 56 of these samples were found to be adulterated. 37 dealers were prosecuted and convicted, the average fines ranging from Rs. 10 to Rs. 25.

On the recommendation of the Advisory Committee, the services of one Bad Tea Inspector were dispensed with in January and since that

date the second Inspector has been fully employed on Exhibition work so that for the past six months the work of detection of bad teas has been discontinued. During this time, however, health authorities have continued to send samples to the Public Analyst. But since 1st October 1932, only three samples of the many which were sent for testing proved to be adulterated. One of these samples was detected by our staff before we discontinued this work. The position is then that during the year ending 30th September 1932, 56 cases of adulteration of tea were detected whilst during the 9 months ending 30th June 1933, only three cases have been detected. The question is whether less adulteration is now being carried out or whether the withdrawal of our staff from this work has resulted in fewer cases being detected.

Work in Mills Area at Madras:—Work in the mills area in Madras was carried out in January when demonstrations were given near the gates of the mills where the employees assemble during the midday meal hour and at closing time in the evening. Demonstrations were also given near the workmen's homes. This work has been continued at intervals when the bazaar party has visited Madras.

Workmen's Social Club and Tea Room in Madras:—The question of financial assistance being given by the Tea Cess Committee was discussed at the last Annual meeting of the U.P.A.S.I. and the matter was then referred to the Advisory Committee who recommended that a grant should be made. The Executive Committee, I.T.C.C. has sanctioned a grant of Rs. 1,500 under certain conditions. The building is to cost about Rs. 6,000 and the Social Workers Committee are now endeavouring to raise the balance of Rs. 4,500. A suitable site has been secured.

The Chairman:—On your behalf, gentlemen, I will thank Mr. Orton for coming here to-day and giving us such an interesting report on his work during the past year. Does any delegate wish to ask him any questions arising from this report?

Mr. W. A. J. Milner:—I think a great deal of expenditure has been incurred last year and much propaganda work has been done. At the same time, judging by the consumption figures, the progress seems to be slow and apparently the consumption of tea has not increased as we expected it. Could Mr. Orton suggest any other ways by which this object could be achieved?

Mr. W. M. Orton:—I think one of the reasons for the slow progress is the general economic conditions. I have visited personally many places. I have visited villages that have been practically without money. I have been to certain places where all the villagers were on the books of the Banias, and in one instance I remember that a shopkeeper of that village could not produce sufficient money to pay for 5 lbs. of tea. He said that they would have no money in that village for another two or three months until they were able to sell their crops. Mr. Milner said just now that the sales in India were not showing any appreciable increase although propaganda work was being carried out. I think it is solely the propaganda work that has been carried out that has helped us to maintain the sales.

Mr. L. Garrett:—May I ask one question? Has Mr. Orton tried tea cider yet?

Mr. W. M. Orton:—Yes, I have. I have three bottles in the office now. The matter is at a stand-still with regard to tea cider. From my own experience, I can say that the possibility of putting tea cider in the

market in competition with aerated waters, is impossible. There is such a great deal more to be done in preparing it.

Mr. E. W. Fouke:—With regard to the adulteration of tea, will it not be possible to put on Inspectors again for this purpose?

Mr. W. M. Orton:—It would, if it was considered necessary and it was recommended by this meeting. The question is whether there is the same amount of adulteration going on now as there was two years ago. The price of tea is so low that it hardly pays people to adulterate it. I discussed this question with the Public Analyst only last week. He said that in the tea which was sent to him to be detected during the past year, there was a very small percentage of adulteration. Two or three years ago, we found tea adulterated as much as from 50 per cent to 90 per cent. Particularly in dust tea there was 50 to 90 per cent of black gram husk. Now the adulterated tea which has been detected during the last year has only got about 10 per cent of black gram husk, and the Public Analyst is of the opinion that this black gram husk was put in the dust to give the liquid a darker colour and not with the intention of making money through adulteration. He suggested that we should send one or two of our men for a month or two to see whether we could detect bad tea. The men that we engaged on this work before took samples first and tested them, and when they found doubtful ones they asked the Health Officers to send for samples. Now the procedure is that the Food Inspector goes into the shops and takes samples anywhere and he may be missing the bad tea. So the Public Analyst suggested that for two or three months we might send our men to see if the Health Officers were failing to detect any bad tea that was being sold.

Mr. C. J. Madden:—One suggestion I should like to make, and that is, to give some reward to the purchaser. I think everyone is interested in advertisements and in receiving something for nothing. For instance, the Odol Tooth Paste, which I purchased myself in order to get an excellent cup. I think Mr. Orton knows that in Tuticorin and Tinnevely previously a large quantity of Ceylon Tea Dust was imported and sold, but under the international regulation which is to be enforced, Ceylon will not be able to use their quotas to export tea to India and there seems to be a vacuum there which might be filled by South Indian Teas.

Mr. W. M. Orton:—I think you will see from my report that we have considerably extended the area we have been working during the past year. We have got down into the Trichinopoly and Tanjore Districts. We are working a bigger area from Bangalore than the whole of England and Wales. We have pushed on at least 100 miles in every direction since the last annual meeting. It is possible that the question of pushing on farther South might be considered by the Advisory Committee.

Mr. Eric Hall:—Can you tell me what the price of the packet tea is which is sold retail?

Mr. W. M. Orton:—It is eight annas a lb. Quarter lb. packet is two annas, half pound is four annas and one pound is eight annas.

Mr. Eric Hall:—What about the two-ounce packet?

Mr. W. M. Orton:—The two-ounce packet is retailed at $1\frac{1}{4}$ annas.

Mr. Eric Hall:—Now all these packets are sold in shops. Which packet is the most favourite?

Mr. W. M. Orton:—The two-ounce packet. We do not pack the tea in these packets, they are given to shopkeepers empty. We supply so many pounds of tea. The requisite amount of tea is weighed out by them and placed in the packets which are simply tied with a piece of string for sale to the customers.

Mr. Eric Hall:—You mentioned that the tea dust was adulterated with about 90 per cent of black gram husk. Is the packet tea in the shops adulterated in the same proportion?

Mr. W. M. Orton:—Pretty much the same. The percentage will not be so high. But still in South India in the area we cover which is pretty extensive, the percentage of adulteration in the tea dust is very much larger. I have been surprised during the last month in the Tanjore District to find small quantities of leaf tea in packets. There are many towns further north in Coorg and Madras where you cannot buy a packet of leaf tea, only dust, but in Tanjore I have recently found certain distributors handling leaf tea in packets which shows that they are able to sell it.

Mr. Eric Hall:—Then you would not like to say that the sale of tea is on the increase there?

Mr. W. M. Orton:—No, I would not.

Mr. Eric Hall:—There is a big sale of dust tea because they get so many cups of tea out of it.

Mr. W. M. Orton:—I think the sale of dust tea is due to a quicker infusion being obtained—that is the argument of the liquid tea shopkeepers. There is no need to wait for even a minute for the tea infusion. You can put tea in a tea-pot and pour boiling water over it and the tea is made. There is no need to wait for infusion, and after all, these people want to be able to serve their customers quickly. Another reason why in South India dust tea is favourite is that having been used to what they call coffee powder, they now ask for tea powder.

Mr. Eric Hall:—Do you think that if the price of tea is lowered, the consumption will increase?

Mr. W. M. Orton:—I do not.

Mr. Eric Hall:—You say that the economic conditions are rather retarding the progress in the sale of tea?

Mr. W. M. Orton:—Yes, I do, but I do not think that if a cheaper tea was placed in the market, it will lead to a much bigger consumption. After all it cannot be much cheaper than eight annas per pound retail.

The Chairman:—You are no doubt aware that one of the members of the Advisory Committee has resigned on going Home. The question came up at the meeting of the Executive Committee yesterday and the Executive Committee nominated Mr. A. W. F. Mills to fill the vacancy. I shall be glad if you will please confirm the same.

The nomination was confirmed.

I should like to read the following telegram which has been received from the Indian Tea Cess Committee, Calcutta:—

"Tea Cess Committee would appreciate your views as to the advisability or otherwise of discontinuing the tea sale operations of the Cess Committee in South India and limiting the future work to propaganda exclusively."

I sent them the following reply.

"The question will be discussed at the annual meeting of this Association on the 15th proximo. Must consult members on this important point."

I have the following resolution to propose so that this matter can be considered:—

"Resolved that Messrs. J. S. B. Wallace, W. A. J. Milner, W. K. M. Langley, W. H. Millar and R. N. W. Jodrell form a Sub-Committee to go into and to report to this meeting to-morrow on the advisability or otherwise of discontinuing the tea sale operations of the Cess Committee in South India and limiting the future work to propaganda work exclusively."

The resolution was carried.

The Chairman:—Might I suggest to the Committee that they invite Mr. Orton to help them if he will be so good as to do so.

Mr. W. M. Orton:—I will be very pleased to do so.

The Chairman:—I will ask Mr. Jodrell to convene the meeting of the Sub-Committee.

BRITISH IMPORT DUTY ON COFFEE

The Chairman:—There is an amended wording of the resolution given notice of by the Coorg Association, copies of which you have all received. I will now ask the Coorg delegate to move the resolution.

Mr. J. S. H. Morgan:—Mr. Chairman and Gentlemen, the resolution which we have given notice of runs as follows:—

"The Association represents to the Government of India that the preference of 9s. 4d. per cwt., granted on Empire Coffee in the markets of the United Kingdom under the Ottawa Agreement is wholly inadequate to meet the abnormal competition from Brazil where the over-production of coffee and the accumulation of stocks are leading to measures for dumping in the United Kingdom and Empire Markets. This Association therefore requests the Government of India to convey to the Government of the United Kingdom the inadequacy of the preference granted under Article three of the Ottawa Agreement and to request His Majesty's Government to grant an increased preference which should be equivalent to 18s. 8d. a cwt., as early as possible."

Coffee at the present time pays the following duties into the United Kingdom:—

Not kiln-dried, roasted or ground, Empire grown coffee 4s. 8d. per cwt. or ½d. per lb.

Foreign grown coffee 14s. per cwt. or 1½d. per lb.

Coffee kiln-dried, roasted or ground with or without chicory 12½d. per lb. or 13s. 6 1½d. per cwt.

Foreign coffee 2d. per lb. or 18s. 8d. per cwt.

We would ask that the following increase in duty be made on foreign coffee:—

Not kiln-dried, roasted or ground to 18s. 8d. or 2d. a lb., and roasted with or without chicory to 2¼d. or 21s. per cwt.

The duties on Empire grown coffee to remain the same as at present.

We would like to draw the attention of the Government to the difficult time which the Industry is going through and that there is a very large amount of capital sunk in the coffee industry, and that owing to the exceedingly poor prices which coffee of such a high grade as ours has been fetching on the London market during the last two years, we would ask the Government to grant further protection for the coffee industry. By increasing the duty on foreign coffee, it would help to increase the demand for Empire Coffee and so increase its market value. It would be interesting to know how the imports of Santos or other Brazilian Coffee have varied since 1928 for consumption in England. There is also a very important question which I would like to refer to and that is the question of dumping and in this connexion I will read out to you a letter, dated 29th May, 1933 from the Coffee Board of Kenya:—

"For some years past the situation in Brazil caused by the over-production of coffee in that country, and the methods adopted for the artificial restriction of the exports of coffee, has been a cause of continual anxiety to all other coffee producing countries. In spite of the destruction of millions of bags of Brazilian coffee, stocks have steadily risen until, according to an authoritative estimate, stocks and the year's crop will amount on July 1st, 1933, to 51,000,000 bags which is sufficient to meet the world's consumption, for all coffees, over the next 2½ years.

"In view of this situation, the Brazilian Government have made ever increasing efforts to capture the markets now held by their competitors. Determined efforts have already been made in Great Britain, South Africa and other countries of the Empire, one of their latest methods being a bonus of 10 per cent. in kind, that is to say, for every 1000 bags sold the buyer receives 100 bags of coffee free. This constitutes an act of dumping. Confronted as they are with an accumulation of stocks of far greater magnitude than even before, still more determined efforts are in progress to invade the British markets, and unless some action is taken, there is little doubt that dumping of large stocks of coffee at prices far below the cost of production in Brazil, will take place.

"It was hoped that the Imperial preference, so much appreciated by the planters of Kenya, granted at the Ottawa Conference would be of immense benefit to the Industry. In point of fact the prices of Empire Coffees in London have been lower than before, compared with non-Empire coffees, whilst the unsold stocks of Empire coffee in London have steadily increased, and the example of the South African market may be used to show that cut rates for Rio coffee definitely preclude the sale of East African Coffees which had been in increasing demand after the Ottawa Conference.

"For the safe-guarding of the coffee-growing industry of the Empire, it appears essential that the dumping of coffee should be prevented, either by *ad hoc* legislative measures, or by substantial increase in Empire preference, or by regulation of imports. Should any agreement on world tariffs be reached at the Economic Conference, the appeal is made that dumping should be excluded from the agreement.

"In 1931 the Coffee Industry of Kenya exported coffee to the value, at the Port of Mombasa, of £1,427,536 and most of this money returns to Kenya in the form of Goods. This being the case, it is apparent that any protection which the Empire can give the Industry will be more than repaid by the increase in trade which will ensue."

I have heard that a large tonnage has been imported into the United Kingdom very recently, and ear-marked for consumption in England. If this is the case, an increase in duty on foreign coffee imported for consumption in the United Kingdom would very obviously help the Empire Producer.

Mr. L. Garrett:—Seconded the resolution.

Mr. W. K. M. Langley:—There is just one point which Mr. Morgan did not stress sufficiently. I am quite in agreement with the resolution as it stands, but, at the same time, I must point out that Brazil does not compete very seriously in the United Kingdom with coffee from East India. It is the Central American Coffee which now comes into competition with the East Indian coffee. The finer qualities of the Central American coffee which flood the market in the United Kingdom, aided by the depreciation in the value of the American dollar, are able to undersell East Indian coffee in the United Kingdom by about 20 per cent. through the advantage gained in the exchange situation alone. Another competitor is the Kenya coffee which is much boosted in the United Kingdom by the activities of the Empire Marketing Board. The Brazilian coffee does not seriously compete with our East Indian coffee and I mention this because that point has not been brought out.

The Chairman:—Mr. Morgan, in view of the very important information given to us by Mr. Langley, will you try to alter your resolution? After the word "Brazil" you may put in the words "and Central America."

Mr. F. E. James:—May I suggest that you alter it in the sense that instead of "Brazil," you may say "Central America" which includes "Brazil" and after the words "accumulation of stocks" the words "and depreciated currencies" may be put in. It is the currency question that is important and should come in.

The Chairman:—I take it Mr. Morgan that you are prepared to accept this amended wording. I will now read the resolution as altered:—

"This Association represents to the Government of India that the preference of 9s. 4d. per cwt., granted to Empire Coffee in the markets of the United Kingdom under the Ottawa Agreement is wholly inadequate to meet the abnormal competition from Central America, where the over-production of coffee and the accumulation of stock and depreciated currencies are leading to measures for dumping in the United Kingdom and Empire Markets. This Association therefore requests the Government of India to convey to the Government of the United Kingdom the inadequacy of the preference granted under Article three of the Ottawa Agreement and to request His Majesty's Government to grant an increased preference which should be equivalent to 18s. 8d. a cwt., as early as possible."

The resolution was carried.

COFFEE CESS FOR PROPAGANDA.

The Chairman:—The Coorg Planters' Association have slightly altered the wording of another resolution that they gave notice of. I will now read the resolution to you:—

"That this Association do approach all producers of coffee in India (whether members of the U. P. A. S. I. or not) with a view to securing

their support for the levy of a cess on all coffee exported from India for the purpose of providing funds to be used with the aim of improving marketing conditions for Indian Coffee."

I will now ask the Coorg Association to speak to the resolution.

Mr. J. S. H. Morgan:—Last year a resolution to this effect was passed and the subject was brought up on a wider basis. We then endeavoured to come to an agreement that a cess should be levied on all coffee produced in India, but we discovered that to obtain a majority of 80 per cent., which would be required before the Government would levy such cess, was more or less impossible, and so we abandoned that idea. This year in order not to let the matter drop, we ask the views of all the members of the Association as to whether they will agree to a cess on exported coffee. The Empire Marketing Board as we saw in the papers yesterday, it is possible, may cease to function. We hope it will not, but it is just possible, in which case, pushing the sale of coffee from India will be more important than ever. There is no doubt that Indian coffee has benefited by the activities of this Board, which have pushed the sale of Kenya Coffee, and in order that the sale of Indian Empire coffee in future should be pushed at home and abroad, it seems that a propaganda fund is more necessary than ever.

The resolution put before you now is only intended to deal with coffee exported from India. To gain a sufficient majority in favour of this should not be difficult. The U. P. A. S. I. through its District Associations could collect views from their members, and the Coffee Growers' Association should also be approached to collect views of those members who do not belong to the U. P. A. S. I. In the resolution I have suggested that the cess be levied at the rate of 4 annas per cwt., and if coast curing firms and other big exporters would undertake the collection of this cess, it would be simple to control. I should suggest again that the Coffee Growers' Association should have control of this fund, which would be run by a Coffee Cess Committee, which would be represented by elected members of the C. G. A., the U. P. A. S. I., the curing firms and a Government representative.

If, as we hope, that Kenya, India and Jamaica coffee is blended into an Empire blend, it will be necessary for each of those countries to subscribe on a *pro-rata* basis to a fund to support that Empire blend. Coffee has for a long time been disunited and I feel convinced that if an export cess is levied, it will tend to centralize the efforts of the whole of the producers and so obtain better marketing condition for their coffee.

Mr. L. Garrett:—Seconded the resolution.

Mr. J. S. B. Wallace:—Is your proposal to use the money outside India or in India? If it is to be used for propaganda abroad, I am instructed by the Nelliampathy Association not to support it.

Mr. J. S. H. Morgan:—Would you agree to it if it is used for this purpose both in India and abroad?

Mr. J. S. B. Wallace:—I have given my views. I am under instructions on this point and I cannot now change them.

Mr. J. S. H. Morgan:—The idea in our mind was that primarily the money should be used for advertising abroad.

Captain E. H. A. Travers Draper:—Do not you think that this is a matter for the committee to decide? The committee can go into the matter later on and decide as to the disposal of the fund. Everyone will be willing to abide by the decision of the committee.

The Chairman:—Will that meet your case, Mr. Wallace?

Mr. J. S. B. Wallace:—Yes. No decision need be arrived at now.

Mr. W. K. M. Langley:—I should like to know what is meant by this resolution. Does it mean producers of coffee or exporters of coffee who have large interests? The resolution says: "That this Association do approach all producers of coffee." I may say that there are many exporters of coffee in the Mangalore market, who are not producers.

Mr. J. S. H. Morgan:—The intention is that the cess should be levied on the producers only.

Mr. W. K. M. Langley:—With regard to a lot of the coffee that is shipped from Malabar, it is very difficult to say who the producers of that coffee are? The coffee is collected in the various bazaars and bulked at Mangalore, and I do not know how you are going to get at the producers of that coffee. I think you can devise some scheme by which you could raise funds, not from those producers of coffee who have got very fully developed markets and who sell their coffee all over the world, mostly in France and in Scandinavia, but from those who definitely propose to sell their coffee in the London market—in order to secure adequate propaganda in the United Kingdom. It seems to me that coffee is sold in fully protected markets in India, but it is those who sell in the London market who should contribute towards propaganda for increasing the sale of the coffee in the United Kingdom.

The Chairman:—Mr. Morgan, in view of what Mr. Langley has told us, do you still wish the resolution to be put in its present form, or would you like this item to be adjourned and brought up later on in the meeting?

Mr. J. S. H. Morgan:—It will be a very good thing if you could do that.

With the permission of the meeting the subject was adjourned till to-morrow.

The meeting adjourned at 12-15 p.m.

Second Day, Tuesday, 15th August, 1933.

The Meeting re-assembled at 2-30 p.m.

TEA SCIENTIFIC DEPARTMENT.

The Chairman:—Gentlemen, in view of the fact that Dr. Leslie Coleman has kindly come here this afternoon, with your permission, we will now pass on to the Tea Scientific Department, in order that Dr. Coleman may not be unnecessarily delayed.

It is unnecessary for me to introduce Dr. Coleman to you as you have known him for many years.

I should like, however, to take the opportunity of introducing to you Sir C. V. Raman who has kindly come here to-day.

Dr. W. S. Shaw:—The copies of the Administrative Report have all been circulated, but if anyone wishes to ask me questions, I shall be glad to answer them.

The Chairman:—You have all seen Dr. Shaw's Administration Report, and Dr. Shaw has kindly consented to answer any questions that may arise out of that report. If no delegate wishes to put any questions in regard to the Tea Scientific Department, we will pass on to the next item.

COFFEE SCIENTIFIC DEPARTMENT

The Chairman:—The Mysore Planters' Association has given notice of the following resolution:—

"This Association considers the question of Coffee is all important and that Dr. Coleman be approached with a view to the matter being taken up at the Coffee Experimental Station."

Mr. L. Garrett:—This resolution was brought up and carried at the last quarterly General Meeting of the Mysore Planters' Association and since then we have referred the matter to Dr. Coleman for his advice. Dr. Coleman has replied that the question has already received some attention from his Department, but that unfortunately he had not the staff required for the continuous investigation of the problem. Dr. Coleman further very kindly gave us a rough estimate of the amount that he thought would be required to carry on this investigation; this would only amount to 1 anna 6 pies per acre per annum on all the Coffee acreage that subscribes to the U.P.A.S.I.

The point of this resolution is to ascertain whether other Coffee Districts agree with us that it is advisable—rather that it is necessary—to make an immediate start on this type of investigation work: we are not asking you to take any decision now that would be binding, but we ask you, in the event of this resolution being carried, to refer the matter back to your Districts, at your next Meetings, and then to put up resolutions which if carried will be binding. The points that I wish to make in favour of this resolution are:—

(1) That the South Indian Coffee Industry depends on the quality of its produce, for its economic existence. I do not think that

this point can be sufficiently emphasised, particularly in view of the increasing competition that we are likely to meet in the future from South America, East Africa, and the Dutch East Indies.

(2) That if you accept this, it becomes obvious that we should take every possible step to try to improve upon our present standard of quality.

(3) That the best step we can take is to initiate a proper scientific investigation into the whole question.

(4) That the most satisfactory and cheapest way of doing this would be to approach the Mysore Government through Dr. Coleman asking them if they would be able to undertake the investigation through their Agricultural Department, and intimating that we would be prepared to finance this investigation to the extent of Rs. 4,000 per year.

(5) That if the Mysore Government would be prepared to do this, we should be very foolish if we did not take immediate advantage of the offer.

They, The Mysore Government, have in Dr. Coleman an Officer whose knowledge of Coffee and its problem must be very nearly unrivalled, and whose genius for directing Scientific Research is admitted the whole world over. Dr. Coleman will not be here for ever so that if opportunity for enlisting his aid to help us over some of the problems arises, we should pounce upon it. Finally I should like to draw your attention to a paragraph which appeared in Messrs. Leslie & Anderson's, Market Review for the quarter ending the 30th June, 1933. Under the heading of Coffee, East Indies, they write us as follows:—

"For the early arrivals, fair to good prices were realised, but the quality of later shipments has been very disappointing. We do not wish this statement to be passed over as the usual comment made at the close of the season, for we can truly report that we have never seen such poor looking Coffee as offered in recent auctions from Mysore, not omitting the Bababoodin marks, and the later shipments of the Oucherlony Valley (Nilgiri) Coffees."

That, Gentlemen, is all that I have to say to this resolution.

Mr. J. S. H. Morgan:—I second the resolution.

The Chairman:—Dr. Coleman wishes to reply to the resolution and also to speak on matters connected with coffee generally.

Dr. Leslie Coleman:—If you cannot see a blush rising in my cheeks at the present moment as a result of the extraordinarily kind remarks that my friend has just uttered, the only reason lies in the fact that my skin has been so indurated by long years in India that I cannot blush any more. I wish to thank you for the flattering reference which you have made to my abilities.

Now, gentlemen, with your permission, I wish to say a few words upon the general organization of the coffee scientific work in South India. You have had before you, I believe, for some days, the report of the Tea Research Station. That is, as you know, a complete statement of all the scientific work that is being attempted in South India in connexion with the improvement of tea. You have placed before you just now a report of your Coffee Scientific Officer. To this I shall refer a little later on. Now I wish to point out to you that this report

is not a complete statement or anything like a complete statement of the work that is being attempted in the improvement of coffee in South India. I think, probably, I am to blame for that.

I should like to take your minds back about five years when the question of the United Planters' Association of Southern India's part in the investigation of Coffee problems, was seriously taken up. I am not going to refer, of course, now to the work that was done many years ago by the Mysore and the Coorg Planters' Associations. I wish to refer to the work that was started in 1928 and which is continuing till now. Now all those who were present here in June 1928 will remember that we started then a scheme which is in many ways, I think, unique in India, unique in the sense that you proposed to place an officer who would work not under your own Executive Committee, at least as far as his scientific work was concerned, but under a foreign officer—an officer of the Mysore Government—in regard to the improvement of coffee. You proposed, further, to ask the Mysore Government for permission that this officer of yours should work on the Coffee Experimental Station which the Mysore Government had already started.

Now, I think some of those who attended that meeting in June 1928 must have felt certain misgivings when the proposal was made, because it is obvious that in an arrangement such as this, unless it is worked with common-sense and with a feeling of mutual respect and confidence, the scheme is likely to lead to disaster. I may tell you, that these misgivings were shared by high authorities in Mysore. There was a feeling at that time that, unless the men who were actually engaged in that work were superior to the ordinary run of mortals, there would inevitably be friction.

You have two men working under two different organizations on the same spot as it were. Now you can imagine the difficulties that may easily arise when one of the men thinks that he has not had a square deal and that he has not had the opportunity to carry out his investigation as he ought to. On the other hand, the man who is directly in charge of the station may suspect that an attempt is being made by the other man to occupy his position and to run the station. I felt some of these misgivings myself, but I felt that if we could get men—and I hoped that we could—who thought more about their scientific work than about prestige or personal ends, that there should be no reason why that loose organization should not function effectively. I am glad to say from my standpoint that all those fears have turned out to be groundless, and I take it from the fact that your Executive Committee have recently re-engaged Mr. Mayne, your Scientific Officer, for a further term of years, that you on your side or at least, your Executive Committee, are satisfied that the arrangements which have existed during the last four and a half years have been sufficiently satisfactory to warrant your continuing this interesting co-operative experiment. (Applause).

Again I must refer to Mr. Mayne's report, and it has occurred to me during the last few days, more especially since I have had an opportunity of going through the very good report prepared by Dr. Shaw, that it is a little unfair to the work that is being done not to place before you, at the same time that you have a statement of the work of your own Scientific Officer, some account of the work that is being done by the Scientific Officers directly employed by the Mysore Govern-

ment. As you know, a report of that work is contained in the Annual report of the Coffee Experimental Station, but that report is not published at the same time as the annual report of your Scientific Officer, simply because the Mysore Government year ends at a different date from your year and from the year of most of the Governments in India. Our year ends, as you perhaps know, on the 30th of June and yours on the 31st of March. The result is that if it is to be an annual report, a report of our year's working, it cannot possibly reach you. It would be extremely difficult to get it into your hands by the time you meet here in August.

However, it seems to me, more especially from the fact, that as the years go by—and I would now refer to my friend, Mr. Congreve, who was very largely responsible for the scheme which is now working so successfully in regard to our Coffee Experimental Station—those men who helped to start this scheme no doubt will pass out of planting work and politics the younger men, who will take up the function of running this Association, the scientific work and the planting of crops in South India, will perhaps find it difficult to realize the extent to which this scheme represents co-operative and co-ordinated effort and what part in it the Government of Mysore really plays. Might I draw your attention to the fact that, you are spending, I think, something between Rs. 15,000 and Rs. 20,000 per annum on this work—and here I speak subject to correction because, as an example of just how loose our organization is, I may say that I have not received nor have I ever even asked for a copy of your Budget and I do not know even what Mr. Mayne is paid or what are the conditions under which he is engaged at the present moment. Now it might interest you to know that the budget of the Mysore Government Experimental Station for the current year, exclusive of the amount contributed by the Association, is Rs. 54,500. So you will see that your contribution still remains considerably behind the contribution that the Mysore Government and the Mysore Coffee Planters are making. I think that must be stated only in fairness to the Mysore Government. You must realize that we are attempting here to do a great deal of work for the whole of the coffee industry in South India and that at the present moment the Government of Mysore and the coffee planters of Mysore—and I now refer not only to the European but also Indian planters of the estates who contribute to the cess—are paying $\frac{2}{3}$ or more than $\frac{2}{3}$ of the total amount of what this work is costing.

As regards Mr. Mayne's report I should like to explain its late appearance. As you know Mr. Mayne is on leave and, I think, it is too much to expect of a man who has worked very hard for over four years, to devote the first days of his leave after being away from his native land for something over four years, to the preparation of his annual report. I had almost forgotten that the report was due when I received a letter from Mr. Mayne telling me that it was going to be despatched. Now, gentlemen, that report was received in the office a week ago last Saturday and, I think, you will agree we have not wasted time in getting it printed. (Applause).

You will find in Mr. Mayne's report, reference to an investigation that took place in South Coorg. The preliminary results of that investigation were placed in my hands by Mr. Mayne shortly before his departure for England. It was in manuscript form. Certain blocks had to be prepared so there has been some delay in getting it printed. I should like to point out, gentlemen, that these reports, including the report on

the work at South Coorg, are published and printed at the expense of the Mysore Government. The reason is obvious. We wish to have all the reports in connexion with the coffee work in South India as a part of one series, so that anyone can know at a glance whether he has a complete set of publications dealing with Experiments in Coffee in South India.

I should like to call your attention finally to another bulletin which has also been placed in your hands to-day dealing with questions of certain interest to a very large number of planters—that is the spraying of coffee. It is perhaps the best possible example of what is going on all the time—that is the co-operation between the officers of the Mysore Agricultural Department and your scientific officer. You will see on the title page and on the cover, the names of three officers and I can assure you that those names are put on there for very good reasons. Mr. Mayne is responsible for the section dealing with leaf Disease and Die Back and their control. He has been engaged on this work for the last four years. Mr. M. J. Narasimham has had to do very largely with the work on spray mixtures in general and very particularly with the control of disease known as "Black Rot" to which he has devoted great attention. Mr. K. H. Srinivasan, who is really the Administrative Officer, in charge of the Station, is responsible for that part of the Bulletin which deals with spraying machinery.

Mr. Garrett has just moved a resolution, which, if it is accepted and carried into effect, will mean further extension of this co-operative effort, and if I might be permitted to say so, I fear a further complication in the already rather complicated situation that we have. Mr. Garrett did not refer in detail to the letters which I have written to him on the subject of quality. All I can say is that I agree with him that this is a question which deserves early and careful investigation. He referred to the fact that a certain amount of investigation work has already been done by the Mysore Agricultural Department. I think I ought to explain just what that work consisted of. There must be very few of those present here to-day, who will remember my predecessor—Dr. Lehmann—who devoted a great deal of attention to the investigation. 25 years ago and more, of problems connected with coffee. When I arrived something over 25 years ago in Bangalore, I found Dr. Lehmann engaged on this very problem. Dr. Lehmann left India for ever about ten months after my arrival, and I regret to say that my attention was diverted to other problems which seemed to me to be of a more immediately pressing nature, so really the investigations to which Mr. Garrett referred are investigations which are now 25 years old. No work has been done since then on this important question.

As regards the manner in which the Government of Mysore may propose to carry out this work, I should like to point out to you that it will have to be divided between the Coffee Experimental Station and our Laboratories in Bangalore, because it, to a certain extent at least, ought to be a bio-chemical problem. I shall worry you now with a statement on the nature of the investigations which will be necessary but it will be almost inevitable that if an officer is employed for this investigation, he will have to work in our rather extensive Laboratories in Bangalore. He will therefore have to work not under Mr. Mayne, but under our Agricultural Chemist. You will, therefore, have another connection with the Mysore Agricultural Department in addition to the one which now exists. I want you to go into this scheme with quite

an open mind and understanding as to what you are letting yourself in for. It will mean that you will have to have confidence in me personally that I shall be able to co-ordinate the work at Balehonnur, on the Estates themselves and in our Laboratories here and that I shall be able to bring the investigation to some sort of conclusion within a reasonable time. I do not think, gentlemen, that you need worry about that. I am not prepared to say that we will be able to tell you all about the quality of coffee within say four or five years, but I do hope that we shall be able to get some sort of a basis upon which a better judgment of the quality can be made here in India than we have at present. It seems to be a hopeless situation when you have to trust entirely to men in London to tell you just what your coffee is worth. I need only remind you that our sister organization, may I call it, the Indian Cotton Committee, realizing the importance of some sort of standardization in connexion with all work connected with the improvement of cotton in India have spent a very great deal of money on the development of a Technological Laboratory in Bombay where samples of cotton, new and old varieties, can be sent for testing and for an opinion as to their value. I should like to state that if the investigation we contemplate is carried through, then at no very distant date you should be able to send samples to us here and we should be able to give you some sort of an idea as to what the coffee will be worth in relation to coffees from other parts of the world.

Then there is another question and that is the effect of manuring and cultivation on quality. I am not prepared to say if these materially affect quality but if we find that they do it will open up a very big field for you to improve the quality of your coffee. I should not like to speak much on this matter, because it is a speculative subject now. It is known, of course, that in connexion with other crops, manuring does definitely affect quality, and it seems to me highly probable that manuring and cultivation will be found to affect the quality of coffee. In this connexion, I may say that we have already gathered together a very large number of samples in our Laboratories here—samples grown under different systems of manuring—so that we have an ample amount of material to start with.

I have presumed on the possibility of your taking some action in this matter and have asked Mr. Mayne during his leave of absence to get all the information that he can possibly get on this question. I have also asked him to get me information as regards small roasting machines, so that we can carry on roasting experiments and carry out experiments on the whole crop from the raw to the finished product.

If you have any questions to ask me in connexion with Mr. Mayne or the work in general, I shall be pleased to answer them to the best of my ability. (Loud Applause).

Mr. L. Newcome:—Dr. Coleman has stated that he is going to try the effect of manuring on cultivation with a view to improving the quality of coffee. Does he mean what I might call periodical manuring and how does it affect the quality in a bad sense or good sense?

Dr. Leslie Coleman:—Different methods of manuring might be expected to affect quality in different ways.—

Mr. L. Newcome:—And excessive manuring?

Dr. Leslie Coleman:—It might quite possibly affect quality.

Mr. L. Newcome:—But not necessarily in a bad way?

Dr. Leslie Coleman:—Certainly not. It is unlikely that a change in manuring would result in a change from a very poor quality to a very good quality but it might lead to a change that would be worth while.

Mr. P. G. Tipping:—Do not you think, Dr. Coleman, that the difference in quality is very often seasonal?

Dr. Leslie Coleman:—Oh yes, of course. It is seasonable and it also depends on the elevation and all sorts of things from which obviously you cannot get away. Then the question you will want answered, I take it, is whether in your particular conditions of elevation and climate and soil, you can improve your quality. But I am not suggesting for a moment that we should be able to take coffee worth say Rs. 40 per cwt. and make it equal to coffee say Rs. 75 per cwt. Have I answered your question?

Mr. P. G. Tipping:—Yes, thank you. There are instances where after working with manure, the quality is one year better and the next year very poor.

Dr. Leslie Coleman:—That shows what effect seasonal conditions have.

Mr. P. G. Tipping:—I would like to ask Dr. Coleman if they have got any farther with the experiments on Borer at the Coffee Experimental Station?

Dr. Leslie Coleman:—Mr. Tipping will find in this report on spraying latest information we have in connexion with the Coffee borer. We have found this quite definitely not only on the Coffee Experimental Station, but also on the private Estates, where spraying has been continued on the private Estates, in a zone where the borer attack has been severe, it has obviously decreased the borer. We are also publishing shortly our report on the coffee borer and bringing into one place all the results we have obtained.

Mr. P. G. Tipping:—As far as we are concerned in South Coorg particularly there is trouble about the pests in trees. That is rather a serious trouble.

The Chairman:—Has any other delegate any questions to ask Dr. Coleman? Dr. Coleman has very kindly outlined the method by which this investigation will take place if this resolution is carried.

I will now put the resolution to the vote which has been proposed by Mr. L. Garrett and seconded by Mr. J. S. H. Morgan.

The resolution was carried.

The Chairman:—Sir C. V. Raman, Director of the Indian Institute of Science, has very kindly consented to say a few words.

Sir C. V. Raman:—Mr. Chairman, I am very pleased indeed to have been allowed the honour of being present at this meeting. I had intended to be present here yesterday as well, but my car was not available and so I could not come. I am here to-day and I have had the very great privilege of listening to a speech, a most interesting discourse, of my Scientific colleague, Dr. Leslie Coleman. It was a

treat for me to listen to him just as I am sure it was a treat for all of you. I wish I could have even a small fraction of the knowledge with which Dr. Coleman evidently approaches subjects which interest you, but not having that, I had almost decided not to open my mouth. But as you, Sir, kindly asked me to say a few words, I should like to say this. I have not been long at Bangalore. I have not been long in charge of the Indian Institute of Science and so it is difficult for me to say very much about problems that will interest you. But I would just like to "lay one ghost." Many must have feared that when a Physicist concerned with abstract problems was put in charge of a great institute for the benefit of India, there was some danger of his neglecting the problems of practical importance. I just wish to say that so far as it lies in my power, it will be my business to see that the Indian Institute of Science does not altogether neglect problems of practical interest. I am especially interested in Dr. Coleman's emphasis and the relationship between Bio-Chemistry and the problem of quality in the coffee. We have in the Institute a department of Bio-Chemistry which has, I believe, in the past done good work and, I believe, has also co-operated with Dr. Coleman's department in various directions. It will be my endeavour to see that that department interests itself in questions such as those that concern you. I think it is very well known that since the days of starting Bio-Chemistry at the Institute, it has largely tended to be agricultural in its outlook, and the department has specialised in the problem of fertilizers, agricultural chemistry and so on. I believe that the problem of quality in crops has interested some of the workers there. How far we shall succeed in being of some use to you, gentlemen, and others in a similar position, is more than I can venture to say. But as I said before, it shall be my endeavour and the endeavour of my colleagues to try and help you and others in a similar position. (Applause).

The Chairman:—Gentlemen, on your behalf, I would like to thank Dr. Leslie Coleman and Sir C. V. Raman for so kindly coming here to-day and addressing us. We very much appreciate the advice and assistance they have given us.

Mr. C. R. T. Congreve:—Mr. Chairman, before they leave the meeting, might I add an expression of our appreciation to His Highness the Maharaja of Mysore and His Government for the tremendous interest they have taken in Coffee since the Experimental Station has been started, and for the continued extraordinary friendly co-operation which has been such a feature during the past five years, between Dr. Leslie Coleman and the officers under his command and the U.P.A.S.I. We express our hope that if Dr. Coleman takes up the question of quality of coffee, which I trust he will, the U.P.A.S.I. will, if necessary, increase their subscription to help towards the necessary funds for that purpose, and that the same co-operation which has been such a feature during the past five years, will continue from now till all eternity. (Applause).

Dr. Leslie Coleman:—I do not know whether I can reply to this very nice speech of Mr. Congreve on behalf of the Mysore Government? I might simply say that this will go forward in the official way, but I shall take the opportunity of mentioning to the Dewan myself the very kind way in which those remarks have been received.

The Chairman:—Before we continue the business of the meeting, I should like to give an opportunity to Mr. Krishna Iyer to say a

few words before he leaves, as he has to catch a train this afternoon.

Mr. Krishna Iyer:—Mr. Chairman, I thank you very much for the invitation you have extended to my Association and the kind words of welcome which you have been good enough to express. I came here to learn and I have learnt a lot. I shall be very glad to carry the information I have gathered here to the members of my Association. (Applause).

The Chairman:—Gentlemen, I know you will endorse my remarks that it is a very pleasant feature of this meeting to see Mr. Krishna Iyer, President of the Travancore Indian Planters' Association. I hope that in future years he will repeat his visit or send some of his representatives, and that representatives of other Indian Planters' Associations also will be present at our meetings. (Applause).

RUBBER SCIENTIFIC DEPARTMENT.

The Chairman:—Have the rubber delegates any resolutions to move?

Mr. Eric Hall:—I have no resolutions to move, but for the information of those who are interested I may say that the Station has been well looked after as also the buildings and I do not think that any deterioration has set in anywhere.

INDIAN IMPORT DUTIES.

The Chairman:—The three items for which we have been asking for exemption from duty owing to their being used purely for agricultural purposes are, Agricultural Machinery, Rubber Hose and Copper Sulphate. As regards agricultural machinery, this matter is still in the hands of the Planting Member who has been in communication with the Indian Tea Association on the subject, but I do not think any further progress has been made on the subject. As regards rubber hose and copper sulphate, the Coorg Association have given notice of the following resolution:—

"That this Association requests the Government of India to empower the Local Governments to issue licenses for the import of Sulphate of Copper and Rubber Hose for a bona fide Agricultural purpose, mainly spraying. Such licences to allow the specified quantity of sulphate of copper and rubber hose to be imported free of duty from Empire countries and 10% from others."

Mr. J. S. H. Morgan:—I had a talk with the Secretary of the U.P.A.S.I. with regard to this matter. I understand that the Association tried to collect the import figures of copper sulphate and rubber hose, but the figures are not yet complete. We did not get replies from all the firms that we wrote to. I would, therefore, suggest that the U.P.A.S.I. should go further into the question and find out the total quantity imported and the quantity supplied for agricultural purposes. From the figures we might possibly be able to show that a very large percentage is used for agricultural purposes only, in which case, we think that Government might grant our request and allow copper sulphate and rubber hose to be imported free. The other question which one of the importers has now arrived at is this. I understand that the import duty is 20 per cent on the British Rubber Hose. He sent for a large consignment and was charged 25 per cent, because the Customs discovered that there was

a certain amount of cotton impregnated in the hosing. The figure 25 per cent. is very high indeed, and 20 per cent. is too high, so we must ask the Government to relieve the situation.

Mr. L. Garrett:—I second the resolution.

Mr. F. E. James:—I took up this matter with various authorities during the year. First of all, in regard to copper sulphate the difficulty is largely an administrative one. Duty is paid when a consignment of goods is actually imported into the country, and therefore it is very difficult to divide up that consignment into what might be used for agricultural purposes and what might not be used for agricultural purposes. That difficulty applies also to the proposal that you make in your resolution that the Local Governments be empowered to issue licences to the members of the U.P.A.S.I. for the import of copper sulphate and rubber hose. If we can show that the bulk of copper sulphate which is imported is used for agricultural purposes, there is a case for a reduction of the import duty. That is the answer I got from the Revenue Authorities and from the Customs Authorities, and then I took it further and placed our difficulty before the Imperial Council of Agricultural Research who have got the power to deal with agricultural problems of this kind. As I explained the other day, I have made out a case before the Council and put up a note subsequently which they said they were going into and now they have referred the matter to the Agricultural Expert attached to the Council and they have not yet received his report. I hope to get that as soon as I get to Simla. If both in the Council of Agricultural Research and in the Government of India there is a willingness to help, they can devise means by which they could help. If the U.P.A.S.I. can undertake the ordering of definite consignments on the discretion of members—that might be one method which might meet with Government's approval. As long as consignments are ordered through various importers, you can obviously see the difficulty.

Mr. C. R. T. Congreve:—Will it not be possible for a certificate to be supplied by these importers showing exactly what a consignment is ordered for, on whose behalf, and the importer will guarantee his certificate to be accurate. The importers are not petty men. They are men of standing. In nearly every case, I fancy, they can give a certificate for the imports that are now made. Could not that be a way out of it?

Mr. F. E. James:—I will certainly put that standpoint forward. One proposal I made was that if there should be a case of consignments taken from customers for agricultural purposes on a licence issued by the Local Government and by the U.P.A.S.I., there should be a drawback on the duty. But drawbacks on duty are what the Government of India are anxious to abolish altogether. Whether they will accept a consignment with a licence from the person who delivers the stuff free if it is said to be definitely imported for agricultural purposes, I am not sure. That certainly could be put up. I would say that as far as the matter in connexion with rubber hose is concerned, we are up against a difficulty. There is definitely the Customs' Ruling that where an article made of one substance is impregnated with another substance, the duty shall be payable on the article which carries the higher rate. In this case you have to pay the duty

on the cotton which is a higher rate than rubber, but I will take up the matter with the Revenue Board in Simla.

The Chairman:—I will now put the resolution to the vote. It is proposed by Mr. J. S. H. Morgan and seconded by Mr. L. Garrett.

The resolution was carried.

PRICE OF PETROL.

The Chairman:—We had a notice from The Tea Estates India Ltd., that they proposed moving a resolution on this subject.

Mr. W. H. Millar:—The resolution reads as follows:—

"That this Association wishes to place on record its protest against the high price at which petrol is sold in India and the heavy incidence of taxation which falls upon the owners of motor vehicles."

I do not think I need say anything more on this resolution.

Mr. A. K. Weld-Downing:—I second the resolution.

Mr. F. E. James:—May I ask Mr. Millar whether the intention of the resolution is to protest against the duty on petrol?

Mr. W. H. Millar:—That is the point.

Mr. F. E. James:—Perhaps that ought to be made clearer in the resolution.

Mr. W. K. M. Langley:—Mr. Chairman and Gentlemen,—In these days of heavy taxation any adverse criticism of prices by a consumer may, more often than not, be an attack upon the incidence of taxation and considering the staggering burden of taxation under which the Oil industry in India has to labour, it is not illogical to assume that the germ of this resolution is directed at those in whose hands the forthcoming and future budgets are to be entrusted. A resolution framed on these lines would, it is needless to say, receive the unqualified and unequivocal support of those interests which I feel called upon to represent on this occasion. I venture to press the hope therefore that this resolution might be suitably amended in order to secure that the heaviest single item which goes to make up the present cost of Petrol to the consumer may receive consideration in the proper quarters. The resolution as it stands tends to lay most of the responsibility for the present price of the article on the established Companies which leads one to suppose that the true facts in relation to what goes to make up the cost of the article are not realised by the public at large. Previous to the recent importations of the Russian product the public was served in this country by two well-established concerns, one being the Combination whose marketing is in the hands of the Burmah-Shell Corporation and the other the concern I myself have the pleasure to be associated with, *viz.*, The Socony-Vacuum Corporation. But the former as representing the indigenous oil industry naturally controls by far the largest share of the market and I must therefore regard this resolution as being particularly criticism of the marketing methods of the indigenous oil industry. That being the case I will now venture to put before this Meeting some of the simple facts of the case which may lead those present to form a rather different conclusion on the subject than they possibly possess at present.

But before doing so I might perhaps digress slightly from the subject at issue and suggest that it seems rather surprising that an Association of producers which is justifiably using every endeavour, as many of the Resolutions tabled for the present Meeting show, to increase the price of its productions to the consumer should give the appearance of criticizing the attempt on the part of another producer to obtain for its production a fair return on its capital. In the case of Coffee the producers at present have a complete monopoly of the Indian market: in the case of Tea restriction of exports with a view to raising prices is already an established fact: and in the case of Rubber restriction of output with a view to raising prices is very much in the air. In addition to this both Coffee and Tea enjoy the benefit of Preferential Duties in the United Kingdom and in most parts of the British Empire. The indigenous oil industry on the other hand where Petrol is concerned possesses none of these advantages: Petrol does not enjoy the benefit of any preferential taxation and in fact is entirely unprotected and at the mercy of any new foreign competitor provided the latter is prepared to invest the large sums of money necessary for the marketing of Petroleum products.

At the Annual Meeting of the Associated Chambers of Commerce held in Calcutta during January 1933, Mr. John Tait of the Burma Chamber in a very interesting and instructive speech dealt very fully with the indigenous oil industry. One of the subjects that he mentioned in detail was the substance of the resolution now before the Meeting, viz., the question of price and the operations of a monopoly. In the present economic situation, any charge of monopolistic tendency must surely fail. The total Indian production is insignificant in comparison with the world's total output.

The main theme of the resolution before the Meeting, however, is the question of price and in any consideration of this subject it is a *sine qua non* first to consider the price structure. In normal times, and under normal conditions of supply and demand, Petrol prices throughout the world have been determined by the cost of laying down Petrol shipped from the gulf ports of U. S. A. This system developed from the economic circumstances and the geographical distribution of Petroleum supplies which left the U. S. A. as the largest producer and the dominating factor in world markets. It may be argued that we are now dealing with an indigenous industry and local prices. But I venture to maintain that having regard not only to prices in other parts of the world but to any other consideration, the Indian price is fair and reasonable. Shorn of Customs duties, freights and other considerations not common to all countries, prices in India compare very favourably with prices in other parts of the world. The motorist may have realized this and may simply be complaining against the high upcountry price when compared with main port price. But does he consider freight, charges for upcountry storage and delivery facilities, loss by evaporation—to mention a few expensive items? One of the established Oil Companies has estimated that not one in ten of the people who complain of the so-called high prices of Petrol has the slightest idea even of the amount of duty per gallon which is payable to Government, although this is painted in a conspicuous place on all outfits. The same Company has further estimated that not 1 in 100 knows the cost of rail freight. On Petrol available upcountry the distributing Company has to pay to Government and Railway over As. 12 per gallon. I say over 12 annas because not only is the import or excise duty payable on all the leakage and evaporation losses incurred by distributors as well

as the Petrol which actually reaches the Car owner's tank (this in practice works out to about 5 per cent. extra or an additional excise of $\frac{1}{2}$ anna per gallon) but also the distributors pay further very large sums to Government in the shape of income-tax, licence fees and customs duties on machinery and stores and a considerable amount to the Railways by way of rent on depots and sidings, freight on machinery, and stores and rail fares for staff. This leaves very little to cover operations such as (1) drilling and maintaining oil fields, (2) paying Royalties and pumping oil from oil fields to port of shipment, (3) refining, (4) tanker freight and insurance, (5) wharfage, (6) tankage and Installation storage, (7) leakage and evaporation at the various onward stages, (8) handling, (9) upcountry service facilities and (10) paying Company taxes and numerous other overhead charges.

It is not generally realised that tremendous losses are sustained in prospecting and developing oil fields, and no mention is ever made by critics of oil company dividends, of those indigenous companies who pay very small and at times no dividend whatsoever.

At the moment supply exceeds consumption but it must be remembered that, unlike other commodities, its natural sources of supply are, very definitely, not inexhaustible.

Oil produced in Burma and India, taking into account the very small production per well compared with other fields, is sold at a reasonable and fair price in India and Burma, but it would be seriously handicapped in any export market because on account of the low production, its well-head cost is out of all comparison with costs elsewhere, and if indigenous Indian oil cannot find a market in the country of its production it must cease to be produced. In Bombay and many other places the indigenous oil Companies have reduced their prices because they are making a determined effort to protect their trade and the indigenous industry but they cannot afford to reduce prices generally and permanently to a level which means selling at a loss. If any evidence of goodwill and good intention is required, surely the fact that present day prices after allowing for excise duty are 28 per cent. below pre-war prices shows this quite clearly. That the introduction of competition leads to the immediate reduction in prices is, at first sight, a very pleasing thought, but if the indigenous industry is forced out, there is no guarantee that the same low level of prices will be maintained in the future as the indigenous industry has done in the past. One other point with respect to this new competition. One Company has recently claimed that it is responsible for the reduction in prices in Bombay and elsewhere and is posing as a public benefactor. It is only right to say that these new Companies attempted to sell at the price ruling at the time of their entry into the market but they were forced, very much against their will, to sell at the un-economic prices to which the indigenous Companies reduced their rates in order to defend the indigenous industry.

The principal Oil Company operating in this country realising that the public is being unfavourably prejudiced against it has published a small booklet on the subject of Petrol prices. A representative of this Company is present at the Meeting out of courtesy to the United Planters' Association and he will be pleased to supply this booklet, together with the report of Mr. Tait's speech to which I have already alluded, to any member of this Meeting who is interested.

Mr. L. Newcome:—May I ask Mr. Langley if he could kindly state the floatation price of the shares of oil Companies in India and the present market value?

Mr. W. K. M. Langley:—I understand from Mr. Newcome that he wants to know the floatation price of the shares of these Companies and the present price. Well, that is available through the usual source of information. I am afraid I cannot answer the question off-hand. I am not a stockbroker. (Laughter).

Mr. F. E. James:—As far as I understand from my friend's resolution and the emphasis he gave on it that what he is anxious for the U. P. A. S. I. to do is not so much as to pass a resolution on a subject about which very few of us know very much, but a resolution on the tax on petrol which is now imposed by the Government of India, most of which goes to swell the general revenues of the country and which the consumer or person who runs the car has to pay. Now if that is the case, then I would strongly urge Mr. Millar to re-draft his resolution so as to leave that without any shade of doubt. As the resolution stands at present it looks as if it is directed against the Oil Companies and the high taxation on petrol. Now what is in Mr. Millar's mind is to protest in regard to the heavy incidence of taxation and there, I think, he will probably get the support of every member of the Association.

Mr. W. H. Millar:—The resolution is not intended to be against Oil Companies. It refers to the taxation and not to the Oil Companies.

Mr. F. E. James:—Yes, that is the point. Might I try to suggest to Mr. Millar that the resolution might be entirely re-drafted in this sense that it records its protest against the incidence of taxation at present falling upon the users of motor vehicles of all description, and if I might suggest to him, I would include not only tax on petrol but also the vehicle tax which motor owners have to pay particularly in South India. Now we are representing a South India constituency and in South India we have a tremendous case against the enormous taxation which we have to pay as motor owners through license fees and provincial taxation on our cars. If the resolution is amended in that sense, it will carry great weight and might do a very great deal of good as representing the views of the U. P. A. S. I.

Mr. W. H. Millar:—Yesterday's resolution covered the taxation burden of licence fees and local taxes.

Mr. F. E. James:—If you cover all forms of taxation which really fall directly on the motor owner, this will be the better resolution.

The Chairman:—Will you re-draft the resolution, Mr. Millar? If you are not prepared now, we could take it up to-morrow morning.

Mr. C. J. Madden:—It seems to me that Mr. Langley has pointed out that while we restrict our own goods, we are grumbling at the restriction of something similar on the part of other producers. But I think we ought to point out to Mr. Langley that so far as Petrol is concerned, the International Regulation is that there should be a reasonable profit only to the producer. We do not want an excessive profit. In that connexion a few figures may be of interest. When I started on this journey, I filled up with petrol and paid Rs. 2-5-0 a tin to the Burmah Oil Company. A little later in my journey I refilled with some more petrol and had to pay Rs. 3-5-6 for the same Company's petrol—this is to say roughly eight annas a gallon difference. I think the figure speaks for itself.

The Chairman:—The subject will be deferred till to-morrow morning.

TEA SAMPLES

The Chairman:—Mr. Congreve has a resolution in regard to the packet tea samples, which with your permission will be put before the meeting.

Mr. C. R. T. Congreve:—I should like to propose the following resolution:—

"That the Planting Member be requested to approach the competent authority with reference to the mail tainting of tea Samples despatched from South India to London and to attempt to get such steps taken as may be necessary to ensure the mails being stowed away from cargo likely to affect them."

The mail tainting of samples is becoming a very serious affair. Week after week letters come from Brokers in London saying that they are unable to rely or report on the tea samples sent to them because they are mail tainted. Week after week the same thing is happening. To one Agent that I know of, twelve successive samples were sent which were all tainted in this way, and the matter was a very serious one inasmuch as selected samples had been made for special testing, and no conclusions were possible owing to the samples being mail tainted. I think our Planting Member who has just returned from Home will tell you that the way in which the mails were thrown about in the P. & O. Steamer which he was on was a disgrace, and it is no wonder that they become tainted, as they are put next to any Cargo that happens to come along. I think it is up to the competent authority to see that this sort of thing is not done. After all we are charged postage for sending these samples home to London and, I think, we have a right to expect fair treatment for those samples and not have them treated as if they were of no importance. I trust, therefore, that every member in this room will agree to this resolution; and when you go back to your Estates you will send Mr. James all the information that you may have with regard to the number of mail tainted samples reported on by your Agents in London. We must have definite data to take up the matter with the competent authorities in Calcutta and Delhi.

Mr. J. S. B. Wallace:—I second the resolution.

Mr. W. A. J. Milner:—The Central Travancore Association support this resolution very strongly.

The Chairman:—The resolution before the meeting is proposed by Mr. C. R. T. Congreve and seconded by Mr. J. S. B. Wallace.

The resolution was carried.

COFFEE PRICES

The Chairman:—I have received notice of a resolution from the Coorg Planters' Association. Mr. Morgan, will you move the resolution?

Mr. J. S. H. Morgan:—I move the following resolution:—

"That this Association do approach the Kenya Planters' Association with a view to their asking their respective Trade Commissioners in London for information on the following point:—

"The cause of the wide margin in the present market value of coffee and the price paid by the consumer."

In the report of the Imperial Economic Committee on coffee in 1931, page 43, you will see they draw attention to and state that they considered the margin to be a wide one, larger than in the case of tea. Now since 1930, the auction price of coffee has dropped considerably, and I doubt if during the last season our coffee averaged 75s. per cwt. on the London market, which is equal to about 8d. per lb. This coffee is still being retailed at the same price as 1930 ranging from 2s. to 2s. 6d. which is three or four times as much as a grower can realize. We should be grateful for any information which the Trade Commissioners in London could give as to the cause of this very wide margin.

Mr. F. E. James:—Might I suggest that it will be probably better to address this question direct to the Indian Trade Commissioner, who has all the information that the Trade Commissioners have and who is much more likely to take interest in it than if you make a request to the Kenya Planters' Association. If the mover and the seconder agree, we would simply approach the Indian Trade Commissioner in London for information.

Mr. R. N. W. Jodrell:—If it is going to the Indian Trade Commissioner and not to the Kenya Planters' Association, would Mr. Morgan mind adding "Tea" to it?

Mr. J. S. H. Morgan:—Not at all.

The Chairman:—I will now put the re-worded resolution to the vote. It is proposed by Mr. J. S. H. Morgan and seconded by Mr. L. Garrett:—

"That this Association do approach the Indian Trade Commissioner in London, through the proper channel, with a request that an enquiry be held on the cause of the great difference in the market value of Coffee and Tea and the price paid by the consumer."

The resolution was carried.

COFFEE CURING CHARGES

The Chairman:—A resolution on Curing Charges has been given notice of by the Mysore Planters' Association. I will ask the Mysore Planters' Association to move the resolution.

Mr. L. Garrett:—The resolution reads as follows:—

"This Association would like to draw the attention of the Coffee Curers' Association to the fact that the Costs of Curing Coffee in South India appear to compare very unfavourably with similar costs in Java, and requests the Coffee Curers' Association to look into the matter with a view to seeing whether they cannot reduce the charges by means of using cheaper labour and more efficient methods."

The Mysore Planters' Association has authorised me to put forward this resolution for the purpose of drawing the attention both of the South Indian Coffee Planters, and of the Coast Curers, to the fact that Curing charges in this country appear to be on the high side, and we hope that by giving the matter publicity, it may be found possible eventually to reduce these charges.

As I personally was responsible for bringing this matter to the notice of the M. P. A., I had better tell you the facts of my case. Early this year I was sent over to Java, and my business there brought me into contact with something like 15 different Coffee Estates. On many of these I was able to go fairly thoroughly into the question of costs of production with the different Estate Managers, and I found, *inter alia*, that the costs of Curing varied between 10 annas and 12 annas per cwt. for Estate-cured Coffees. The process of preparing these Java Coffees for the market includes drying (by artificial means) and thereafter hulling, sorting, hand garbling, and packing; the costs of all these works are included in the figures I have just given you, and although they refer in particular to the Curing of Robusta Coffees, yet I am told that the costs of Curing Arabica Coffees are no higher.

Now in comparison with these costs of 10 to 12 annas per cwt., the charges made by the South Indian Coast Curers of Rs. 2 per cwt., appear to be on the high side, although it must be remembered that the latter figures have to allow for supervision, depreciation and upkeep charges on plant and buildings, fuel for motive power, etc. It is very difficult to effect a proper comparison between these two sets of figures, as the Estate Accounts that I saw did not show depreciation, but as far as I could judge from the figures at my disposal, even after allowing for all these extras, the Java costs would only work out at from Rs. 1-4-0 to Rs. 1-6-0 per cwt. Hence I assume that the cost of Curing is from Rs. 12-8-0 to Rs. 15-0-0 per Ton higher in India than in Java. Now the main object of this resolution is to point this out, and to ask the Coast Curers for their co-operation in trying to reduce this difference.

My second point is as regards labour costs. We believe, though we do not know for certain, that a good deal of the difference referred to is on account of labour costs, for the Java Planter uses cheap Estate labour for his hand garbling, whereas on the Coast one gathers that it is not possible to obtain labour at from 3 to 4 annas per day, and thus do the garbling work at under 8 annas per cwt., which appeared to be the maximum cost on Estates that suffered badly from Berry Borer. I would suggest to the Coast Curers that if they find it impossible to get this work done at cheaper rates, they might try to arrange to accept Coffees that have been garbled on Estates. Many Estates now have their own hullers, and it would not be a difficult matter for Planters to hull and garble their own Coffees, and send them down for a final drying and sizing. I make this point with particular reference to Cherry, Native and Robusta.

My next point is as regards drying. They told me in Java that they have found sun drying far less efficient than drying by machinery, this in the Eastern part of that country where climatic conditions are suitable for sun drying, and where many of the smaller Estates have to employ this method. I would suggest to the Coast Curers that it might be well worth their while to investigate the possibilities of making use of some of their modern drying machinery, which is remarkably efficient and very cheap to operate.

At the present time our South Indian Coffees are generally recognised as being the best cured Coffees in the world, and I trust that none of my suggestions will be misinterpreted so as to give the entirely false impression that we are aiming at cheapness at a sacrifice of quality, for that is the last thing we desire. If the Curers are quite satisfied that they cannot improve the efficiency of the present system without a sacrifice

in quality, then we shall probably drop the matter altogether, but we trust that they will treat it seriously, and do their best for us.

Mr. J. S. H. Morgan:—I second the resolution.

Mr. W. K. M. Langley:—I wish to reply to this resolution and in doing so I should like to thank Mr. Garrett for the extremely nice and courteous way in which he has introduced this subject. Needless to say if we could possibly accept the resolution we should be glad to do so. I use the word we as I am authorised to speak on behalf of all the other Curers who are in agreement on the subject of curing charges and with whom my own firm has been in correspondence on this particular subject. I confess to some disappointment that the resolution should have been brought forward at all, because a very similar resolution was brought forward two years ago by the representative of the Nelliampathies and I replied at considerable length to that resolution which was subsequently withdrawn. I had hoped therefore that this implied that this Meeting appreciated the reasonableness of the arguments which I then advanced. Exactly the same circumstances still exist as described by me two years ago and I do not propose to weary you by repeating everything that I said on that occasion. In actual point of fact there is even less justification now for any reduction in curing charges than there was two years ago. Those who were then present may recollect that at the end of my speech I was able to point out that fortunately for us, though perhaps unfortunately for the Jute interests in Bengal, the price of jute had gone down considerably and consequently with a much cheaper cost for gunnies we were able to make an all round reduction in curing charges of Rs. 5 per ton. Well, I have taken out the costs of gunnies used in connection with packing Coffee at the time I spoke in 1931 and at the present time and I find that the price has now advanced very considerably. A. Twills are now quoted Rs. 34.2 per 100 against a price in 1931 of Rs. 29.8; Light Cess Rs. 27.4 against Rs. 24.12; E. bags Rs. 22.14 against Rs. 20.6. So really it seems to me that if the 1931 Meeting accepted, as apparently it did, the explanations I then gave, this Meeting should now consider whether we would not be justified not in reducing the curing charges but on the other hand, on account of the increase in the price of gunnies, actually increasing the full curing rate. I hasten to assure you that we have no intention of doing that although more than one Curer in reply to a circular letter I drafted on the subject suggested that there was a distinct case for an advance in curing charges.

Now, to consider the actual terms of Mr. Garrett's resolution, it seems to me that you cannot possibly compare conditions in Java with conditions on the West Coast of India. We must take the conditions in each case as we find them. Then again we have no detailed information as to whether the curing in Java is anything like the same standard as the curing on the West Coast. In fact I gather from Mr. Garrett's remarks that he was good enough to admit that the curing on the West Coast was the highest standard of curing in the world. Again if you claim a comparison between curing in Java with curing on the West Coast then you might as well advance that argument in the case of everything else connected with planting. I believe that Mr. Garrett's own Company is concerned both with Tea and Robusta Coffee in Mysore and it would be interesting to know whether they are able to achieve the same output per acre and the same cost of production in Mysore as is possible in Java; and so on all down the scale. Personally I do not consider this a fair comparison and if that is admitted then it

seems to me it is hardly fair to compare curing charges on the West Coast with curing charges in Java.

Then Mr. Garrett was good enough to make a suggestion as to how we might possibly reduce our expenses. Needless to say we are always most anxious to achieve that if we can. But it seems to me to be rather a contradiction in terms that we should at one and the same time introduce cheaper labour and at the same time produce more efficient work from that labour. The one consideration seems to me to absolutely contradict the other. Any way I can assure this Meeting that it is quite impossible to obtain on the Coast any cheaper class of labour than we secure at present.

So far as curing is concerned, the West Coast really means Mangalore as being by far the biggest Coffee centre. But during the past few years there has been an enormous development in Mangalore in connection with the export of Cashew Nuts. The labour required for this industry far exceeds the labour which is required for Coffee curing and at the same time Cashew Nuts provide employment all the year round. It has consequently become a serious problem in connection with Coffee curing to get sufficient labour at all and there is certainly no prospect of being able to maintain anything like an adequate, let alone competent, labour force for curing by any attempted introduction of a lower rate of wage. There is also the probability, amounting to a certainty, that any variation of labour rates in a downward direction would lead to serious strikes and you can picture the serious situation which would arise in the event of a labour strike at the height of the curing season. I am afraid therefore that it is quite impossible for us to fall in with this proposal and reduce our labour cost though we would be only too glad to do so if we possibly could. At the same time as I remarked in 1931 such reduction as might be possible would have very little effect on the total cost of the curing operation. Quite as important an item as labour in the cost of curing is the necessary overhead charges for supervision and interest and depreciation on machinery. These together with the cost of labour go to make up practically all the cost of Coffee curing and I think it will be seen in view of these remarks and in view of the detailed explanation given by me two years ago that there is no possibility of our being able to accept the proposals put forward in Mr. Garrett's resolution. I regret that I should appear to be adopting so unsympathetic an attitude but I maintain that we really have no option in the matter.

Mr. Garrett has already admitted the high standard of West Coast curing and I can assure him, and this Meeting, that there is no form of curing so far as I am aware, with the exception of the rough Estate curing in Java described by Mr. Garrett, which is cheaper than the curing on the West Coast. I recently saw figures of charges for curing and shipping in Kenya and these worked out slightly higher than the West Coast and I state with some confidence that the garbling of East African Coffee is nothing like the standard required and given on the West Coast. There is also quite a large amount of curing done in London in the case of other Coffee producing countries. You can be sure that in that case the most modern machinery is used for the purpose and operating costs reduced to a minimum. There is usually no garbling done in connection with London curing and garbling is one of our heaviest items. But for the simple process of curing, without garbling at all, the cost in London is very much higher than the total cost including garbling on the West Coast.

The Chairman:—Is it true that Mangalore is going to be an electric power station? In which case, the Curing Firms there will make a reduction.

Mr. W. K. M. Langley:—There is already an electrical scheme under European management working in Mangalore. But I regret that this would not enable us to save on curing charges. We have already been into the question of taking this electrical power for our Curing Works but find that it would be much more expensive than our present system and we therefore do not propose to use it.

Mr. L. Garrett:—There are two main points which Mr. Langley has not at all touched upon. One is the question of accepting Coffees that have been garbled on Estates and the other is using modern machinery for drying. I trust that the Coast Curers will give these points their very careful consideration and try to co-operate with us.

The Chairman:—After hearing what Mr. Langley has said, do you still press this resolution?

Mr. L. Garrett:—We have instructions to move it.

The Chairman:—The resolution before the meeting is proposed by Mr. L. Garrett and seconded by Mr. J. S. H. Morgan:—

The resolution was carried.

IMPORT DUTY ON COFFEE INTO S. AFRICA

The Chairman:—The Coorg Association has given notice of the following resolution:—

"This Association requests the Government of India to approach the Government of South Africa with a view to the latter granting a preference on Indian Coffee imported into South Africa."

Mr. J. S. H. Morgan:—South Africa is a large Coffee consuming country. A very large quantity of coffee is imported into South Africa from Brazil and Central America, while Kenya also has a large share in that market. I have not got the figures as to how much coffee from Kenya is sailed and shipped to South Africa, but, I think, it is a great deal. Indian Coffee is not pushed in the South African market at all. I understand that at the Ottawa Conference, Dominions were entitled to arrange amongst themselves for various articles which each Dominion happened to deal with, and in this case it will be an extraordinarily good idea, if the Indian Coffee could be introduced into South Africa with the help of a preference.

Mr. L. Garrett:—I second the resolution.

The Chairman:—I now put the resolution, proposed by Mr. J. S. H. Morgan and seconded by Mr. L. Garrett, to the meeting.

The resolution was carried.

COFFEE SIZING

The Chairman:—The Mysore Planters' Association have given notice of a resolution. It reads as follows:—

"This Association considers that it would be to the advantage of Producers if coffee for the London Market should be graded A. B. C. P. & T., and that O should not be graded unless the beans are of a larger size than the A. B. C. grades."

Mr. L. Garrett:—The Mysore Planters' Association has for some time past been somewhat concerned over the question of Coffee grading. Our aim is not to attempt to force any violent and immediate reforms, but to initiate a movement for the easier and more successful marketing of Coffee in London. As a start, we put forward this resolution in an attempt to maintain a high standard for the O grades of South Indian Coffees in general.

Some time ago we sent a circular on this very point to all the principal Coffee Curers, and their replies, though not unanimous, were mostly to the effect that they agreed to the principle of our suggestions but that they could not put it into practical effect without the agreement of their clients, many of whom are resident in England. We have taken up the matter with these latter individually, but have not yet received their replies. In the meantime we are putting up this resolution to ascertain the feeling amongst the other Coffee Districts, and if we meet with a satisfactory measure of agreement, we shall feel justified in going ahead with our plans. The whole problem is fraught with difficulties, and it may prove beyond us, but we feel that it is a move in the right direction and one that should be attempted.

The problem of obtaining co-operation amongst producers without the aid of Government, has always been a thorn in the side of the agricultural world, but it is a sign of the times that the Governments of the world are more and more every day tending to force unwilling individuals to participate in any general scheme or plan which may be proved to be for the general good of the community. It may even be that we shall eventually have to be prepared to take this idea to Government to ask for assistance in preserving the standard of our Coffees, which at present seems to be somewhat imperilled by certain immoral individuals who insist on having their A's graded as O's, in the hopes that they may thereby obtain a slightly higher price in the market.

Mr. J. S. H. Morgan:—I second the resolution.

Mr. W. K. M. Langley:—I should like to make a few remarks on this subject. The resolution seems to be rather loosely worded and it is not clear to me whether it is desired that "O" grade should disappear entirely or whether it alludes to a possible practice of taking what is only "A" and describing it as "O" with a view to securing a better price. If it is a case of abolishing the genuine "O" grade altogether then it seems to me that this is a matter for planters themselves to decide and instruct their curers accordingly; obviously curers cannot take it upon themselves to alter grades without reference to their constituents. But I cannot see that there is any likelihood of getting general agreement on this particular point. I personally am more concerned with the curing of Nilgiri and Anamalai Coffee and I will venture to give you a case in point showing that "O" grade when it is genuine "O" can command a large premium over "A". I will take a recent instance under my own observation, that of two shipments to London this past season of Puthutotam Coffee from the Anamalais. In the case of the first shipment 27 bags "O" grade realised in the London Sale Room 133s. 6d. per Cwt. while 41 bags "A" size realised 103s. 6d. In the case of a subsequent shipment 25 bags "O" grade realised 126s. while 85 bags "A" grade realised an average of 82s. 3d. In the face of these figures I do not think it likely that the proprietors of Puthutotam Estate would instruct their curers to do away with "O" grade. I hope I have not been indiscreet in mentioning this particular instance and I

hope that Mr. Congreve does not mind this particular disclosure. If, however, the resolution refers to some practice of taking "A" and calling it "O", which presumably means calling "B" "A" and so on I confess that I have never heard of the practice which on the face of it might be assumed as intended to deceive. But I can assure this Meeting that buyers of Coffee on the London market are very shrewd people and are not likely to be taken in by anything of that kind. As a matter of fact I noticed the other day a letter from Messrs. Leslie & Anderson to a mutual planting friend bearing on this particular subject and I will take the liberty of quoting an extract from this letter which ran as follows:—

"For ourselves we think it is immaterial whether the sizes are marked O, A, B, P and T, or A, B, C, P and T, for buyers of spot Coffee take no cognisance of these marks, seeing they form their own opinion as to whether the Coffees are bold or extra bold when sampling them before the Auctions."

In the face of these remarks I do not see that any particular advantage would be gained by the general adoption of the proposal contained in this resolution but as I have already remarked it is really a matter for planters as curers are always ready to follow the instructions they receive from their constituents.

The Chairman:—Before putting the resolution to the vote, I would like to ask the mover of the resolution as to what he wants to be done. It is not very clear as to what you expect the Association to do with this resolution. I do not quite understand.

Mr. L. Garrett:—I think, Sir, that it is more a matter for seeing whether the other Districts agree to the principle of the suggestion which we have put forward. We do not in this resolution ask the Association to do anything.

The Chairman:—Do you wish it to be sent to the District Associations?

Mr. L. Garrett:—I do not think that is necessary.

The Chairman:—I take it that you do not wish the Executive Committee to do anything in this matter. You simply wish it to be placed on record. The resolution is proposed by Mr. L. Garrett and seconded by Mr. J. S. H. Morgan.

The resolution was carried.

MARKETING OF COFFEE IN INDIA

The Chairman:—The Coorg Association have asked for permission to move the following resolution:—

"That this Association requests the Imperial Council of Agricultural Research to lend the services of an Officer expert in marketing for the purpose of advising the members of the Association and of the Coffee Growers' Association on the marketing of coffee in India."

Mr. Morgan, will you please speak to the resolution?

Mr. J. S. H. Morgan:—The idea of this resolution is that we should ask the Imperial Council of Agricultural Research to lend the services of an officer, expert in marketing, for the purpose of advising both us and the Coffee Growers' Association on the question of market-

ing coffee in India. The idea is that further developments might be made in northern India. I believe the Coffee Curers' Association have done a lot in finding new markets for coffee and, I believe, they have also extended their activities in the North. If we have the loan of an expert officer to examine this subject, I think it will be of great benefit to the Planting Community down here. Will Mr. James explain the matter further?

Mr. F. E. James:—Well, the only thing I can say is that the Imperial Council of Agricultural Research is giving a great deal of attention at the present moment to the question of marketing, and they have just passed a resolution providing for the funds of an officer who should be expert in questions of marketing produce, who should be able to advise producers as to the best methods of marketing, and it seems to me that inasmuch as the Coffee Growers' Association are one of the most important producers in South India, there is no reason why it should not avail itself of the services of this officer. We should ask the Imperial Council of Agricultural Research for the loan of his services. That was why I made the suggestion to the Coffee representatives.

The Chairman:—The resolution before the meeting is proposed by Mr. J. S. H. Morgan and seconded by Mr. L. Garrett.

The resolution was carried.

THE EMPIRE MARKETING BOARD

The Chairman:—Mr. Congreve has a resolution to move on this subject.

Mr. C. R. T. Congreve:—I wish to propose the following resolution:—

"That this Association views with alarm the proposal to abolish the Empire Marketing Board and presses the Government of India to use every endeavour to get the British Government to reconsider the situation in view of the vast importance of its work and the Indian Agriculturist."

The Empire Marketing Board was established for the purposes of:—

- (a) Advertising Empire Products in the markets of the United Kingdom.
- (b) Conducting and financing schemes of scientific investigation in connection with the growth and development of crops throughout the Empire, the control of diseases and improved production.

Many instances of its activities exist, but I should propose to only mention a few which concern India and our industry in particular. In 1929, the Board gave a Capital grant to the Indian Tea Association towards the cost of a laboratory for Plant Physiology at Tocklai, and a 5 year maintenance grant towards the development of research on problems connected with the constitution and composition of the tea plant. They also gave a capital grant to the Ceylon Tea Research Institute. Grants were made to India towards the cost of lac research and marketing and the investigation of rice diseases. A publicity campaign was instituted in the United Kingdom and the "Buy Empire Goods" slogan is a good example of this branch of their work. Statistical Pamphlets dealing with the production for trade in oilseeds and vegetable oils (copra, groundnut, cotton seed, linseed, etc.) and with plantation crops (Tea, Coffee, Rubber, Spices, Sugar, etc.), have been

issued by them at various times. Reports on the preparing for markets and the marketing of foodstuffs and raw material produced within the Empire were published from time to time.

To show the value of their work, I would mention that many records for imports to the United Kingdom from Empire Countries were broken in 1932, largely due to the work of the Board, and I would instance the case of Indian Rice which for the first time since 1925 reached a total of 1 million bags in 1932. The imports of Tea from this country reached 312 million lbs. in the same year, the largest since 1918. Ever since the Empire Marketing Board was first created, the purchase of Empire goods has gone up enormously in the United Kingdom and the volume of Empire trade has greatly improved.

The Empire Marketing Board has hitherto been almost entirely financed by the British Government and though its work has benefited the whole Empire, India having as already shown benefited directly from the campaign in favour of Empire goods, through the propaganda in favour of Empire Tea, Coffee, Rice, etc., as also through grants to scientific bodies. The economic situation has forced the British Government to review its commitments and the vote to the Board was limited in 1932-33 to £300,000 and it is now proposed to abolish it and its propaganda work altogether and to transfer its scientific work to other organizations unless the Dominions are prepared to share to a greater extent the present cost. It is understood that South Africa has declined to subscribe to this body, and that other Dominions are reluctant to add to their expenditure at the present time. Thus the Empire Marketing Board is in grave danger, and the object of this resolution is to urge on the Government of India to do all in its power both of persuasion and of direct contribution from its revenues and to save the Institution.

The Empire is the one stable economic unit in the world and the furtherance of its unity and economic sufficiency is of the greatest importance. I trust every delegate to this Meeting will support the resolution which, I feel sure, you will all agree, is of the greatest importance to India and our industries.

*Mr. R. N. W. Jodrell:—*I second the resolution.

*The Chairman:—*I will now put the resolution to the vote. It is proposed by Mr. C. R. T. Congreve and seconded by Mr. R. N. W. Jodrell:—

The resolution was carried.

LABOUR DEPARTMENT—DIRECTOR'S REPORT

*The Chairman:—*The Director's Report on the working of the Labour Department for the year ending 31st March 1933, has been printed and circulated to all the delegates. Has any delegate any questions to ask or any remarks to make on the Report? If not, I propose from the Chair:—

"That the Director's Report for the year ending 31st March 1933 be adopted."

The resolution was carried.

THE LABOUR DEPARTMENT

*The Chairman:—*At the Labour Department Meeting that was held yesterday, which I am sorry to say I could not attend throughout, the following resolution was recommended to this meeting:—

"That the Executive Committee be authorized to sanction at their discretion any extra mileage, clerical staff, and the appointment of a Junior Assistant to the Palamcottah Division if they and the Director consider the extra expenditure necessary."

It is not necessary for me to go over the ground again. The subject was fully discussed yesterday. I presume you are all in favour of the resolution as you passed it yesterday at the Labour Department Meeting.

The resolution was carried.

U. P. A. S. I. RULES

The Chairman:—At the General Committee Meeting held yesterday, Rule X, the old abandoned acreage Rule, was rescinded. It is unnecessary for me to go into this question because it was thoroughly discussed yesterday and I will just formally put the resolution to the vote. I propose from the Chair:—

"That in order to collect the subscription payable by Rubber at the rate of 4½ annas per acre on the total subscribing Rubber acreage, according to the rates laid down under the Reorganization Scheme for the Head Office 1933-1934 Budget and approved by the General Committee in March 1933, the Abandoned Acreage Rule for Rubber (U.P.A.S.I. Rule No. X) approved at the 1931 Annual Meeting is hereby rescinded."

The resolution was carried.

U.P.A.S.I. LABOUR RULES

The Chairman:—At the meeting yesterday, you decided on an alteration to Labour Rule No. XVI. It is unnecessary for me to discuss this or to speak to it. I will just formally move the resolution. I propose from the Chair:—

"That the following clause be added to the U.P.A.S.I. Labour Rule XVI:—

Provided that, in the case of labourers only, no claim be admitted if the debt is legally time barred"

The resolution was carried.

PLANTERS' CHRONICLE

The Chairman:—A summary of the income and expenditure of the Planters' Chronicle is shown in the statement of accounts, and the Editor's report for the year has been printed and circulated. I take it that no member has any remarks to make or questions to ask.

The Nelliampathies' Association have given notice of the following resolution:—

"That this Association requests that the Planters' Chronicle publish half yearly a list of names and addresses of:—Chairmen and Secretaries of District Associations; members of the Executive Committee, U.P.A.S.I.; and members of the Indian Tea Cess Advisory Committee (South India)."

Will you speak to the resolution please, Mr. Wallace?

Mr. J. S. B. Wallace:—I have not very much to say about this. I think it is a most suitable publication. It is a very important thing.

The members of these committees sometimes change their offices to another place, and it is very necessary to know their correct addresses.

Mr. W. A. J. Milner:—I second the resolution.

The Chairman:—I take it that most of the Associations have their annual meetings in April and May, so possibly June and December would be the most suitable months to publish this information in the Chronicle. Does that suit all Associations? I will now put the resolution to the vote.

The resolution was carried.

PLANTING DIRECTORY

The Chairman:—At the last annual meeting the delegates were requested to ask their District Members to study the Directory carefully and to send all their views to the Head Office in order that a thorough revision of the Directory may be undertaken in 1933. Only a few suggestions have been received. The most important point is put forward by the Nelliampathies' Association who request that the Estates should be grouped under their respective District Associations and not under Administrative Districts as now. It is also suggested that Estates should be grouped under Planting Districts as a whole, and not under two different headings of Members of District Associations and Non-Members of District Associations. This is a matter which we might discuss now.

Other suggestions are—the Nelliampathies' suggest that a list of all commercial firms handling planting requisites, together with a brief summary of the goods dealt in, should be included. The Anamallais' Association suggest that the usual postal addresses should be given as to the nearest post office as now. I presume this corresponds with the suggestion of the Central Travancore Association that the Anchel postal addresses be also given. This Association also asks that the time it takes for a letter to reach Madras and Cochin should be given; also the methods of reaching the Districts, and a special notice that telegrams often take as long as letters to arrive. These are the only suggestions that have been received from the District Associations. Your Secretary would like to know what you wish done in these matters. I have put forward the various suggestions made by the Associations, and would now like your instructions.

Mr. R. N. W. Jodrell:—Does the Secretary see any difficulty in carrying out any of the suggestions?

The Secretary:—I see no difficulty as regards the grouping of the Estates. That might be an advantage. I do not know what most Associations think. There are two questions to consider. How are you going to group Estates—By Administrative Districts or Planting Districts. Also at present Estates are separated into members and non-members in each district, and this, in what you might call a public service directory, is cumbersome when you want to find out a particular person in a particular District. There is no difficulty in making these changes. If you wish it to be done, it shall be done.

As regards a list of all commercial firms handling all planters' requirements, that would make it pretty nearly a Trade Directory for South India. Nearly every firm supplies something or other which goes to Estates. I do not know whether this idea meets with your

approval. It could be done, but it is likely to make the Directory more bulky. It is for you to say, but I do not see the necessity for it, as most firms are very good in advertising in the Directory, and there is always an index of advertisers in the Directory. So it is easy to turn them up and see what they sell.

As regards the post office, originally the heading "nearest post office" was given, but it was meant to be the "nearest postal address". In sending round to the Estates for corrections, I shall make it clear that what you want is the actual postal address.

Mr. C. J. Madden:—Travancore has an indigenous system of its own. There are the usual Government of India Post offices and also an indigenous communication system which is worked by the Travancore Government. It is cheaper, but it is not quite so reliable.

Mr. Eric Hall:—I should like to suggest that all these suggestions might be accomplished if we draw up the Directory on the basis of the Ceylon Green Book. There you have all Districts followed by an alphabetical list of Estates followed by an alphabetical list of all European residents.

The Secretary:—Our present Directory covers all the ground that is covered by the Ceylon Green Book. But our alphabetical list of the Estates, instead of giving the details of all those Estates there, gives you the reference number which you can turn up in the District Section. There is also a separate index of all European and Indian Planters, including some who have retired or are doing planting business at home, and their addresses. We have got that information.

Mr. Eric Hall:—Not in the same way as is given in the Green Book.

The Secretary:—The Green Book is more than double the price of ours.

Mr. Eric Hall:—Then it has got the acreages of Tea and Rubber, nearest Railway Station, nearest Telegraph Office.

The Secretary:—That information is given in two places in the Green Book, and duplication is what we try to avoid. Under our system we combine all the information without duplicating. Mr. Waddington worked out very carefully which was the best way and this is what he selected. It is a much easier way for quick reference than the Ceylon book really.

Mr. P. G. Tipping:—Personally, I may say that the information is quite easy to find and is very simple. All the members of my Association went into this subject at one of our meetings, with a view to ascertain opinions as to any alterations that they might wish to suggest, and they were unanimously of the opinion that they did not consider that any alterations were called for in the way in which the Book is compiled at present. In regard to the suggestion of the Nelliampathies that a full list should be supplied of the commercial firms, it rather struck us that it would be rather a colossal undertaking to give the names of the commercial firms handling all planting requisites, because Planting requisites cover a very big range. We were unable to understand what was meant by the sentence:—"With the full commercial catalogue in each case".

The Chairman:—It strikes me, gentlemen, that would be giving free advertisement to these firms.

Mr. T. E. Howe:—I think Trade conditions must be considerably improved before they can supply a complete catalogue to the Association with regard to all their goods.

The Chairman:—I think the chief point is, whether the Estates should be grouped as they are now, that is, under their Administrative Districts, or changed to District Association groups. That is the chief point, and if we can get over that question, we can then come to a quick decision on the other points raised. Do you consider that we should retain the Book in the form it is now, as regards the Administrative District headings or whether Estates should be under Planting District headings.

Mr. J. S. H. Morgan:—Keep them as they are.

The Chairman:—The opinion of the meeting is that they should be kept as they are. Is everybody in agreement with that? The Nelliampathies' Association are the only dissentients.

THE EMPLOYERS' FEDERATION OF INDIA

The Chairman:—Now that the Employers' Federation for All-India has been established, our Committee considered it advisable for this Association to be a direct member of that Federation instead of being a member of the Employers' Federation of Southern India, and notice has been given to resign from the latter. This means a slight increase of expenditure, but the direct advantage of being members of the Central Federation is obvious. The subscription that we are now liable for is Rs. 600 per annum as against Rs. 250 that we were paying to the South Indian Federation. In the Employers' Federation for All-India we are entitled to 30 votes which I may mention is twice as many as the South Indian Federation has. The Indian Tea Association is also a member of the Federation for All-India—in fact they are one of the original members, and even if we are not able to send a representative to the meetings often, it is certain that the Indian Tea Association will always be represented, and they will doubtless represent our views as well. I think Mr. James would like to speak to you for a few minutes on this important question.

Mr. F. E. James:—This is a very important matter and as I was, to some extent, responsible for the formation of this organisation, I should like to say a few words about it. For sometime past there has been a feeling that in view of the pending Labour Legislation and Labour Movement in the country, it was essential that the Indian employers of labour and the European employers of labour, should, in some way, come together for co-operative action.

Early last year, Mr. Mehta, who is the Chairman of the Bombay Mill Owners' Association, Sir Edward Benthall and I had a preliminary meeting and drew up a few valuable suggestions. Early this year those suggestions, which had been considered by all the great producers in this country, were presented at the Conference at which were present Sir P. Thakurdas of Bombay, Mr. Bali Ram of Bengal and various other Indian leaders of industry. We had a very difficult conference one Sunday in Delhi which lasted from 10 o'clock in the morning till 9 o'clock at night with an interval for lunch and tea, but the result was that we were able to sign an agreement between the various interests concerned relating to the formation of this body and relating to the spheres of operations which will be open to the All-India Employers' Federation. I was very

anxious that the U.P.A.S.I. should join this Association from the outset, but until the matter had been gone into I was not prepared to recommend emphatically that the U.P.A.S.I. should resign the Local Madras South India Employers' Federation and join the new Body. But after the constitution had been definitely drawn up and I had attended the first meeting of the Committee in Bombay, I was satisfied definitely that from our point of view we should derive far more benefit by joining the All-India Federation, and I accordingly put up a note to the Executive Committee and I am glad to say that the Executive Committee has accepted the suggestion.

The Federation consists of the Coal interests, the Jute interests, the Tea interests, most of the Textile interests in Bombay and South India and in the Indian States of Rajputana, also the Tata Iron and Steel Works and all their subsidiary Companies. I think also that the Oil Companies which employ labour will be joining shortly and I have received information that it is probable that other great organizations employing labour will also be coming in. So practically it will be the most powerful organization in this country—a Body in which, for the first time as far as I know, the great Indian industries and the great European industries, will have united. It is regarded as a matter of very great importance, and if you had been to the Dinner which we gave Sir Hubert Carr in London when the Secretary of State attended, he devoted two-thirds of his speech emphasizing the conditions under which European and Indian industries, both town industries and agricultural industries, had come together and were working together as far as possible, and he said quite definitely that he regarded the formation of this organization as most important in the history of India, Political and Commercial, that had taken place up to the present. Therefore, we are fully justified in identifying ourselves with this organization.

I can tell you from our own experience that it has already borne fruit in the Legislative Assembly to-day. The Europeans find help in co-operation with the Indian industrialists frequently. I will give you one illustration. We secured the support of the Indian industrialists on the Workmen's Compensation Bill to our proposal that the proposed rates be put on a different basis. That means when the matter comes up for final revision by the Assembly, there will be a solid block not only of the European group but of the All-India Employers' group in favour of it. By ourselves as a purely European Body, we can do very little, but if we can attract to our side the Indian interests, which after all are very commonly identical with our interests, we stand a chance of getting many things which we should otherwise not attain. It is quite clear that in the coming days the Movement of Labour, Trades Unions and the tendency to canvas in both Provincial and Central Legislatures on rather extremely Labour lines, is going to be more and more marked. Therefore, it is very essential that the Leaders of Employers of Labour should combine together and form one solid organization which will be able to command tremendous influence with the Government of India, with the Indian States, and also with the Provincial Governments. (Applause).

SPORTS CLUB FUND.

The Chairman:—The Kanan Devans Association has given notice of a resolution which they propose moving. You remember that last year a sum of Rs. 200 was granted to assist in the expenses of the Planters who formed a Planters' Team to compete in the Madras Rugby

Tournament. This year the Hony. Secretary of the Rugger Committee has asked for a sum of Rs. 722 to be taken from the Fund in order to meet the expenses of the entrance fee and railway fares. The amount standing to the credit of the Fund is Rs. 1,246-12-8 and if the grant is sanctioned at this meeting, it will reduce the Fund to Rs. 500. I will now ask the Kanan Devans' Association to move their resolution.

Mr. E. N. Pinky:—In accordance with information I have received since coming to Bangalore, I have altered my resolution and reduced the sum which I was originally asking for. It is not necessary for me to enlarge upon it. It is well-known that this sum is required to meet some of our expenses to compete in the Madras Annual Rugby Football Tournament. My resolution reads as follows:—

"That a sum not exceeding Rs. 350/- for travelling expenses and entrance fee be sanctioned out of the Sports Club Funds to enable a Planters' Rugger Team being sent to Madras to compete in the Madras Annual Rugby Football Tournament."

This resolution is being seconded by Mr. W. A. J. Milner.

Mr. A. K. W. Downing:—As Rs. 200 was considered sufficient last year, my Association would like to know why an excess of Rs. 150 has been asked for this year?

Mr. E. N. Pinky:—We calculated for second class railway fares plus entrance fee. Last year my Association paid some of the charges.

Mr. R. N. W. Jodrell:—The resolution last year distinctly stated that Rs. 200 would be allowed for the entrance fee and for the purchase of jerseys.

The Chairman:—That is correct. The Kanan Devans paid the railway fares.

Mr. R. N. W. Jodrell:—My Association wishes to oppose this resolution as it stands at present. They feel that some grant might be given towards the Planters' Rugger Team, but that we cannot go on disbursing large sums which they maintain is the donation of the life members' subscriptions to the Sports' Fund. If this grant is to continue annually, they would rather that we put forward an amendment that the Sports' Fund money be handed over to the Benevolent Fund.

Mr. A. K. W. Downing:—My Association is entirely in agreement with the views just expressed by Mr. Jodrell.

The Chairman:—Mr. Jodrell, are you framing an amendment?

Mr. R. N. W. Jodrell:—No, Sir.

Mr. E. W. Fowke:—The subscription of the life members should be kept for the purpose for which it was originally put up for.

Mr. P. G. Tipping:—I think at the previous meeting the life members raised the question that if the Sports Club was closed down, the money should be handed over to the Benevolent Fund, as far as I remember.

The Chairman:—There was no resolution on the subject. It was merely a suggestion. If no other delegate has got anything more to say, I will now put the resolution to the vote.

The resolution was carried.

The Meeting adjourned at 5-35 p.m.

Third Day, Wednesday, 16th August 1933, 10 a.m.,

PROPOSED COFFEE CESS FOR PROPAGANDA

Mr. J. S. H. Morgan:—After discussion on this subject yesterday, it was decided that the resolution put before you did not meet the case and that a fresh resolution should be drafted. The resolution now reads as follows:—

"That this Association requests the South Indian Association to be good enough to ascertain the probable annual cost of a well-considered scheme of propaganda in the United Kingdom for East India Plantation Coffee and also to advise whether it would be possible to arrange for recovery by Brokers and Agents of a cess of 8 annas per cwt. on all Coffee sold in the London Sale Room in order to contribute towards the cost."

This resolution does not bind any Association to anything very definite, but the main idea is that, if the South Indian Association will go into this matter for us at Home, we shall then have some idea of the probable cost of a propaganda scheme on the basis of coffee sold in London. The cess will be levied on all East Indian coffee sold in London, whether for home consumption or for re-export, and if we get that information I think we shall have some idea as to how this scheme can be carried out, what benefit we should get from it, and what it would cost.

Mr. L. Garrett:—I second the resolution.

The Chairman:—This question came before you yesterday, and the matter was fully discussed. Since then the Coffee delegates have had a meeting of their own, and this revised resolution is the result.

Mr. W. K. M. Langley:—I have much pleasure in supporting this resolution and, as I have before expressed, I am strongly of opinion that by far the best propaganda to be tackled first of all is propaganda in the United Kingdom. In the second place, it will give us the opportunity, as Mr. Morgan says, of knowing exactly what the proposed propaganda would cost and on what lines it should be conducted. If we request the opinion of the experts of the South Indian Association in London, they will be able to give us a definite line to work on, and they will also give us some idea of the cost. Then we shall know if propaganda of that nature can be started in the United Kingdom.

The Chairman:—Is it meant that this cess should be levied only on the East Indian Coffee?

Mr. J. S. H. Morgan:—Yes.

The Chairman:—Do not you think that the words "all coffee" should be altered to "all East Indian Coffee?" The resolution definitely says "all Coffee."

Mr. J. S. H. Morgan:—We only meant our Coffee.

The Chairman:—Are you prepared to make this slight alteration?

Mr. J. S. H. Morgan:—Yes.

The Chairman:—Does the seconder agree to it?

Mr. L. Garrett:—Yes.

The Chairman:—I will now put the resolution to the meeting which reads as follows:—It is proposed by Mr. J. S. H. Morgan and seconded by Mr. L. Garrett:—

"That this Association requests the South Indian Association to be good enough to ascertain the probable annual cost of a well-considered scheme of propaganda in the United Kingdom for East India Plantation Coffee and also to advise whether it would be possible to arrange for recovery by Brokers and Agents of a cess of 8 annas per Cwt., on all East Indian Coffee sold in the London Sale Room in order to contribute towards the cost."

The resolution was carried.

PRICE OF PETROL

Mr. W. H. Millar:—In continuation of the discussion yesterday, my resolution now reads as follows:—

"This Association do place on record its protest in regard to the unduly heavy incidence of taxation, Provincial and Imperial, that is imposed upon owners of motor vehicles in the Madras Presidency—and more particularly with regard to the excessive tax on petrol."

Mr. A. K. Weld-Downing:—I second the resolution.

Mr. W. H. Millar:—I may state that our only object in bringing forward this resolution is to draw attention to the very heavy taxation that we have to pay.

The Chairman put the resolution to the meeting.

The resolution was carried.

INDIAN TEA CESS COMMITTEE

The Chairman:—Yesterday a Sub-Committee was formed and we asked that Sub-Committee to go into the question as to whether it was desirable or otherwise to continue the sale of tea by the Indian Tea Cess Authorities in South India.

I will now ask the Convener of the Sub-Committee to be good enough to give us their report.

Mr. R. N. W. Jodrell:—With reference to the question whether we advise the U.P.A.S.I. to ask for the discontinuance of the practice of selling tea by the Indian Tea Cess Committee in South India and request them to concentrate on propaganda work, we make the following observations and recommendations:—

(1) We are unanimously opposed to the practice of selling tea by the Indian Tea Cess Committee, but we realize that a small quantity of tea should be available for sale by the Superintendent, following on his propaganda work.

(2) We consider the Indian Tea Cess Committee staff should not become salesmen of tea. The sale of tea to recognized and established tea dealers should be stopped as it interferes with the ordinary business of the distributors.

(3) The Cess Staff must be forbidden to canvas orders for any particular distributor or producer.

(4) We are of opinion that too much prominence has been given, of late, to the record of quantity of tea sold by the staff to the detriment of true propaganda work.

(5) We wish to deprecate strongly the practice of measuring the success or otherwise of an individual's work by the quantity of tea sold by him each month.

(6) We are of the opinion that the local Advisory Committee should put forward recommendations with regard to the supply of tea required for sale on propaganda by the Indian Tea Cess Committee in South India."

Besides the expression of our recommendations, we had a discussion in Committee which is of some importance, but which did not come within our terms of reference. There appears to be a lack of understanding between the propaganda staff of the Indian Tea Cess Committee and the Distributors of tea. We are of the opinion that the propaganda work is inclined to be left in the air, unless there is some link between the Cess staff and the Distributors. We are of the opinion that the Distributors ought to make an effort to follow the Cess Staff work. As I have said, the sale of tea has been looked upon as the measure of success by the staff. We think that that is a great mistake. It is very easy for them to go into big towns and find out the existing tea dealers and sell 10 or 20 or 50 lbs. of tea at a time. We do not consider that to be true propaganda work. Propaganda work should be the finding of the non-tea drinkers and converting them into tea drinkers and then thereafter the supply of tea should follow.

The Chairman:—On your behalf, gentlemen, I would thank the Sub-Committee for the manner in which they have gone into this matter and the trouble they have taken to render their report so very quickly. I have a resolution to propose, but before doing so I should like to hear the views of delegates on this report that has been just read out to you.

Mr. Weld-Downing:—On behalf of my Association, I entirely agree with the report.

Mr. P. G. Tipping:—We also agree with the report.

The Chairman:—I propose this resolution:—

"That the Report of the Tea Cess Advisory Committee be adopted and forwarded to the Indian Tea Cess Committee."

The resolution was carried.

PLANTING MEMBER AND POLITICAL DEPARTMENT

The Chairman:—I will now ask Mr. James, your representative, to address the meeting.

IN COMMITTEE

Mr. F. E. James:—In regard to the activities of my Department during the year, reference has already been made to most of them and there are further details in the report of the Executive Committee, but I shall be very glad to answer any questions or give any further information that is in my power to do. What I would like to do this morning is to speak more generally about the future organization of Political representation in South India.

May I begin by reminding you that I came down to South India five years ago. This is my fifth Annual Meeting and things have developed considerably since those early days. Mr. Congreve, I think,

will explain the development of matters as from the beginning and I will not touch on that. But I would say that for the first 3½ to 4 years I represented the Planting Community in the Madras Presidency in the Legislative Council and was officially your Planting Member. It was always very patent to me during those years that, while I might assist Planting interests in Indian States by representation to Government of India, my work actually in the Madras Legislative Council did not benefit them directly. They had their own problems in their own States and their own representatives in their own State Legislatures. I mention that because I have all along been fully aware of that difficulty.

In 1931 I paid the first official visit on behalf of the Planting Community to the Government of India in connexion with the prohibition of imports of un-roasted Coffee and you will remember—I think I can claim it as a fact—that those representations that I made then personally to the Officials of the Government of India and to the Viceroy himself, were mainly responsible for getting the Government to agree to a measure, which, I think, has saved the Coffee Industry from a tremendous slump in recent years. But it opened my eyes to the necessity, even in those days, for constant and adequate representation of Planting interests at the Headquarters of the Government of India, and I can tell you now that it was about that time I suggested to the other interests in Madras that I should go into the Assembly where I felt I could be of more general value to the Planting interests. At that time the other interests in Madras did not agree to my going, and it was not until 1932 that it became clear to all the interests concerned that for the time being at any rate much more importance was attached to the Central Legislature than to the activities of the Madras Legislative Council, and for the last year I have represented the Madras Europeans in the Legislative Assembly. Again I think I can claim, without attempting in any way to exaggerate things, that my part in the Assembly during this year has enabled me to serve much more adequately and efficiently the interests of Planters not only in the Madras Presidency but also in the Indian States. Personally I have felt again—I am not going to exaggerate anything at all if I can avoid it—much more satisfied that I was rendering a real service to the Planting interests of the Indian States than I felt before I went to the Assembly. A list of the items on which I am now negotiating with the Government of India will convince everybody that that is the case.

I am up against a very difficult position, because, as you know, I am representing not only the Planting interests, but I am also connected with other European interests in Madras—Commercial and Trading. Naturally it is impossible for me to be in two places at once and some of these interests feel that they are being neglected when I am away from Madras in the Assembly. This became prominent sometime ago, and it became clear to me that if our organization were to serve all the interests adequately, it must provide for representation both in the Province and at the Centre, and it is to that end that Sir Edward Benthall and I have been largely instrumental in the last 18 months in putting forward a proposal for a re-organization of representation of European interests all over the country. I would like in a few minutes to explain our proposals, because the Madras situation fits into the wider scheme for the whole of India.

The proposal is that there should be an All-India Political Fund which should be responsible for the recruitment and the support of four or more full-time representatives in the Legislative Assembly.

At present, there are already four full-time men there; there is Sir Leslie Hudson from Bombay, Mr. Morgan from Bengal, Mr. Lindsay Scott from the United Provinces and, of course, myself from Madras. There is also the representative of Assam who is a full-time man and at the present moment there is going to be an additional representative from Bengal representing the Tea interests. Actually in the next Session there will be six full-time men there, but normally the number need not be greater than four. The position is at present that these four men are supported by their Provinces, and the proposal is that in future there should be a Central Political Fund, which should bear that cost. The Central Political Fund would be raised by subscriptions from the great All-India interests and also from interests in the United Kingdom which are vitally affected by developments in India.

During my stay at Home, opportunity was taken of meeting all the representatives of the big Banks operating in India, and also the big Insurance Companies, and this scheme was put before them and they were asked whether they would subscribe. I cannot reveal what is at present entirely confidential, but I can say this that these large interests will subscribe and subscribe on a fairly liberal scale to the Central Political Fund for full-time representation in the Assembly.

Now, in addition to the direct subscriptions from the big All-India interests, and in addition to the organization of the Central Political Fund, there is at present in existence a Provincial Fund in Madras, in Bombay and in Bengal. The object of those Funds is to provide Secretarial assistance and representation in the Provincial Legislatures and the proposal now to be made is that these Provincial Funds should be connected with the Central Fund in this manner. The Provincial Fund will be responsible for collecting Provincial subscriptions for its own work, and out of this Fund it will pay its local man and also subscribe to the Central Fund for a representative from its Province on the Legislative Assembly. If I can give you a concrete illustration, it will make things perhaps clear. At present Sir Leslie Hudson has started a Provincial Fund in Bombay. If the scheme goes through, he will, in future, be employed by the Central Political Fund, but the Bombay Provincial Fund will pay to that Central Fund an annual contribution for the services of Sir Leslie Hudson as representing Bombay. In addition to that, the Provincial Fund will pay for the services of a Secretary or a full-time Politician in the Local Legislature.

Now in regard to Madras, the proposal is a similar one, that is to say, the Madras Fund should have two men. First of all, it should have a permanent man always in Madras to look after the Madras office and, secondly, it should have a regular and permanent representative in the Legislative Assembly. As I told you the other day, the Sessions of the Assembly are very long and it is almost impossible to get a business man to go up from Madras and give say six or seven months to purely political work, and it will be still more difficult in future when, under the new Constitution, Madras will have to find two men to be in the Assembly. Therefore, if this proposal goes through, it will mean that you will have:—

(a) A representative in the Assembly whose services will be available to Madras because he will represent Madras, but who will be one of the full-time men in the Assembly and who will be paid directly by the Central Political Fund. But for his services to Madras, the Madras Local Fund will pay an annual subscription to the Central

Fund. The Central Fund will be controlled by Trustees representing all the Provinces. Also there will be:—

(b) A second man—probably a younger man, who will work under the supervision of (a) who is likely to be the Senior, and who will always be in Madras. He will do the local Municipal work and the local Legislative Council work.

Now that is all right as far as it goes. It provides representation in the Madras Legislative Council in which the Indian States are not particularly interested, and it provides representation in the Federal Assembly in which the Indian States are even now interested and in which they will be more and more interested as time goes on. For you must remember that Federation is practically a certainty and amongst the States that are to come into the Federal Scheme are the South Indian States, which, I understand, have all agreed to enter the Federation from the moment the scheme is prepared. You will have in the Federal Assembly matters coming up which will affect the Indian States more than British India. You will have representatives from the Indian States up in the Federal Assembly working with the representatives in British India. It is not in the least likely that any European representative will be sent up from the Indian States to the Federal Legislature—I mean any non-official European. Therefore the Europeans in Indian States will have to look to the representative who goes up from Madras to look after their interests as well in the Federal Assembly.

The only weak point in that scheme from the States' point of view is that it leaves out of account the cost of local representation in the States' Legislatures, and it seems to me that that should be met and ought to be met if the Provincial Fund in Madras extends its operations. I think there should be no difficulty in providing for the payment of any necessary expenses, when required, for the representation of our Political interests in the Indian States and in Coorg. I am speaking now individually but I think I can say that such a proposal would meet with the approval of the Committee of the Fund. Mr. Fowke and Mr. Langley are both members of the Committee of that Fund and, perhaps, they will be prepared to speak on this point later on. If, therefore, the Scheme that I have outlined is accepted, and if a portion of the Fund is extended to meet the expenses of our representatives in the Indian States' Legislatures and in Coorg, it seems to me that we are providing for our Defence on *all* Fronts, and we are doing something more and which I believe is of fundamental importance, we are retaining the unity of the U.P.A.S.I. on Political matters. (Applause).

I may say that I have had the opportunity when I was in London of talking over all these matters with two or three members of the South Indian Association and with the Chairman, and it is quite clear that their desire is that nothing whatever should interfere with the essential unity of the U.P.A.S.I. on political matters. (Applause). While at the moment it may not seem, perhaps, to some of you in Indian States or even to people in Coorg to be of such vital importance—I do not admit it is not even now—I would urge you to bear in mind that it will be of tremendous importance as soon as the new Constitution gets going, and the new Constitution will get going within a comparatively short time. As the Federation is established, you will find that in many matters the interests of the States and the British India

Provinces will be bound closer together, and that is why on all these things unity in the Association is of vital importance.

I will only add one personal note if you will permit me, and that is to say that ever since I first came down to Madras five years ago, I have received nothing but courtesy, general assistance and support from the members of the Planting Community. Whatever may be the course of the future and whatever may be the results of this re-organization of the European Political Fund in India, I personally hope very much—though the matter is not in my hands—that I may be permitted to continue the privilege of representing the Planters of Madras in the Political sphere, because it has been a genuine pleasure and privilege to me to be able to be associated with the Planting Community. I am not going to draw any invidious distinction between one community and another, but I will go so far as to say this that no one could have had a finer constituency to work for than I have had in the South Indian Planting Constituency. (Loud and Prolonged Applause).

Mr. C. R. T. Congreave:—Mr. James has suggested that I should speak on the matter of Political representation in this Presidency and first I should like to refer back to the days of its inception. Between 1925 and 1928 propaganda work was done to try and induce the Planting Associations and the Commercial and Trades' Associations of Madras to combine together to engage a paid political officer to represent them in the Madras Legislative Council. After a certain amount of work a scheme was agreed to, and it was first proposed that the Madras Chamber of Commerce should nominate a man for this purpose, but this apparently proved impossible. In 1928 the United Planters' Association came to the momentous decision that they would, on their own, engage a Political Officer with or without the help of any other Community. During Mr. Cotton's régime as Chairman of the Association, he entered into negotiations with Mr. James, with the result that he was engaged as the Planting Member in the beginning of 1929. I think this must be admitted as the greatest step ever taken by the United Planters' Association since its inception forty years ago. (Applause).

Mr. James soon proved his worth. He co-ordinated the work of the European members in the Legislative Council. He was able by his example and help to get a combined body which attended meetings, which spoke on all subjects, and soon after paved their way to the formation of a combined European body. His work was so much appreciated by the Madras Chamber of Commerce and the Trades Association that, in 1931, the present Political Fund was started in Madras. Mr. James has already pointed out to you that he felt, while in Madras, that his work was not benefiting Indian States in the way he had hoped, and although I have spoken many times against Travancore's wish to have some alteration made, I think they had a certain amount of right in what they stated. But, gentlemen, that situation is now altered. In 1932 Mr. James went up to represent Madras in the Legislative Assembly, and it was very soon apparent that his work was going to be of enormous benefit to every Planting interest, whether in British India or in the Indian States. Mr. James put through the Bill with regard to the prohibition of Coffee, and he has been very instrumental in the working of the Tea Export Scheme. In fact, it is very largely due to him that Indian Planters agreed to co-operate with us in this scheme. He has, engaging his attention now, many measures which will be of immense value to the whole of the Planting Community.

It appears that another milestone has been reached in the Political life of the Europeans in India, and it is up to this Association to give its whole-hearted support to the Scheme outlined by Mr. James to-day. It is going the right way, and it is going to prove, if it is passed, of the most enormous benefit not only to this Association but to every European who has interests in India whether he may live in the Continent of India or not.

We now have to consider the question of aiding Political representation in the Indian States. As you all know, in the Indian States in South India, the Planting Community has representatives in the various Legislatures, and it is hardly fair to expect these men not only to give their whole time to it, but also to spend their own money representing the Planting Community, when it should be the job, and I maintain it is the job, of the whole Planting Community to combine together and to pay the necessary costs. It is essential in these days that we co-operate whole-heartedly in all Political work. The only possible chance, as I said many years ago and I reiterate it now, is for the Europeans to make their weight felt in the various Legislatures of this country, to combine together and be as one body holding one interest before us, and ready to sacrifice time and money to attain the object before us. As time goes on it is probable that it may be necessary to employ paid politicians in these Indian States. If that should come about, it is essential for this Association to find the necessary funds for that purpose. I hope that when the Chairman puts this resolution before the meeting, every member in this Room will hold up his hands, so that it may be passed unanimously.

Before closing, I should like to strike a note of appreciation for Mr. James. He has now been with us for five years. As I have already said he made his weight felt from the day he arrived, and his work since has gone to show that when we made the choice in engaging him in 1928, we engaged absolutely the right man for the job. He was chosen as the Leader and Chief Witness to go to London to give evidence before the Joint Parliamentary Select Committee on the White Paper—an honour due to his great work and great brain and one that he very well deserved. I trust that nothing will stop his continuing to represent us in the future. I look forward to his help and leadership for many years to come, and I feel that if the scheme he has been so largely instrumental in suggesting is put through, and he continues to represent Madras in the Legislative Assembly and down here, we shall be more and more thoroughly catered for in the future. (Applause).

Mr. W. K. M. Langley:—The general subject under discussion has already been dealt with so very fully by Mr. James and Mr. Congreve, that there is really very little that I have to add on this occasion. My views as to the importance of a very strong Central Organization are already very well known. I expressed myself fairly strongly on that subject at the meeting on Monday, and I say again that I am very strongly in favour of the proposals which Mr. James has outlined this morning and which have already, as you are aware, Sir, been under consideration of the Political Fund Committee, of which you and I are members. There is one particular point which commends this scheme to me, and which possibly may be commending itself to others, and that is this. It seems to me that by this scheme, and probably by this scheme only, will it be possible for us to ensure that we will retain the services of Mr. James. That is of the utmost importance. We know how well he has served us

in Madras, in Delhi and in Simla, and to me it would be appalling if there were any prospect of Mr. James possibly leaving his service for Madras, because his services would at once be snatched up by some other Province, I can assure you of that, and then we will have to rely on somebody else who probably would not command our confidence or serve us so well as Mr. James. It seems to me that it is only by this Scheme that we are—I hope we are—definitely sure of retaining his services.

There is one other point which I would refer to. I think Mr. James mentioned that Mr. Fowke and myself as members of the Political Fund Committee would be able to give some indication as to whether that Committee would be ready to support the very reasonable proposition that any necessary contribution should be made from that Fund to the expenses incurred in Political matters in the Indian States. Well, as one member of that Committee I can say straightaway that I shall strongly support any such proposal, and I am sure Mr. Fowke will as well. We both have a very strong leaning indeed in favour of that proposal, and I think I can say with some confidence that the Committee will certainly be prepared to make any reasonable contribution for that purpose. But at the same time I would just venture to remark that the Committee would certainly be much more favourable towards making such contribution to the Political representation in the Indian States if all the firms in those States would also themselves specially contribute to the Madras Political Fund, in the same way as practically all the firms in the Madras Presidency outside those Indian States do.

The Chairman:—As Mr. Congreve has indicated, I have a resolution to move and so I would ask the permission of the meeting to move the same.

Permission was granted.

The Chairman:—I have the following resolution to move:—

“That this Association is of opinion:—

(a) That Mr. F. E. James' services as Political representative should be retained at the expiry of his present contract.

(b) That, for the present, Mr. James should continue to represent Madras Europeans in the Assembly, and that, in connection with the proposed organization of political representation in the Provinces and at the Centre, provision be made for the engagement of an Assistant to Mr. James, who would be stationed in Madras during Mr. James' absence at the Assembly.

(c) That the South Indian Planting and Commercial Representation Fund should make provision, if and when required, for the payment of the expenses involved in securing adequate representation of European interests in the Legislatures of the South Indian States and Coorg.”

This is the resolution, gentlemen. In my opening address on Monday, I touched on the question, rather particularly, of the future of the political side of U.P.A.S.I. affairs. I do not propose to speak at great length, as Mr. James, Mr. Congreve and Mr. Langley have already fully covered the ground, but I do think that there are one or two points which we should bear in mind and on which I should like to lay emphasis. The first point is that if this resolution is carried, as I hope it will be, we will retain a lien on Mr. James' services. The

question that will arise in your minds, naturally, is what is it going to cost us. It will, I think, cost us in the Head Office Cess no more than it is costing us now. We have the money available. Even if it should be necessary to increase the political grant in order to pay for the representatives in the State Legislatures and Coorg, we would be in a position to enhance slightly the present figure of Rs. 12,000 a year which we are giving and still have a surplus in our Budget. Mr. James and Mr. Langley have already touched on the charges of the Political Representation Fund considering the question of meeting these expenses and, as a member of that Committee, I would undoubtedly use my utmost endeavour in securing this end and to avoid increasing our present subscriptions to the Fund. Mr. James and Mr. Congreve have already spoken on the question, but I should like to emphasize that before Mr. James went to the Legislative Assembly, the Indian States in the U.P.A.S.I. felt possibly that they were not getting full value for their money. Times are changing, but if they were prepared, as they were then, to pay for what they were getting, how much more so should they be willing to continue to subscribe to this Fund with the increased benefits they will derive by Mr. James being in the Assembly in the future. A great point to my mind is that under this scheme, Mr. James will not sever his connection with Madras. He will still be at our service to a certain extent. He will, when the Assembly is not sitting, be able to come to Madras and, visit his Constituents in their respective Districts, and, in any case, his Assistant, who will reside in Madras, will be in a position to deal with all local affairs as Mr. James is doing at the present time.

I will now formally move the resolution:—

Mr. W. A. J. Milner:—Would it be possible for you to give us the views of the South Indian Association?

The Chairman:—You have already heard the views of the South Indian Association at various times on this question. It came up in the meeting last March, but since then I have received a private letter from Mr. Pinckney. He has not written specially in regard to Political representation, but he does touch indirectly on this point. He says:—

"The subject of the Travancore Combined Planters' Association has once more come to the front in connexion with the representation in the Travancore Legislative Assembly, but if this difficulty could be got over, I would prefer to leave the matter as it stands and let Travancore voice their wishes through the District Associations to the U.P.A.S.I. as now."

Mr. W. A. J. Milner:—Mr. Chairman, in compliance with the request of Mr. Madden and Mr. Hall, might the Travancore delegates have just a few minutes to talk the matter over together.

The Chairman:—Yes.

After a short interval the debate was resumed.

Mr. J. S. B. Wallace:—I have much pleasure in strongly supporting all what you said just now about the Political representation. There is not the slightest doubt that Political representation of the Planting Communities in South India should be in the Central Body, and that there should be full co-ordination between the respective representatives at the centre and those in Madras and in the States. At one time I was afraid that the States might have to pay extra funds for these local repre-

representatives, but under the present proposal it will not be so; and as any necessary expenditure in the States will be met by the Central Fund, I feel sure that the proposal will meet with the approval of the Associations in Mysore, Travancore, Cochin and Coorg.

Mr. W. A. J. Milner:—I would like to say personally that I absolutely agree with everything that Mr. Congreve and Mr. Wallace have said. It will certainly be a calamity if we are not able to retain Mr. James' services. At the same time in Travancore we have got to be careful in agreeing to any proposition like this, and I would like to suggest that the resolution be amended in this way—

"That this meeting recommends to the District Associations the following proposals", etc.

If you put it like that I think it would be strengthening our hands and everybody else's. I think approval is practically guaranteed, but we want to make quite sure. I think I am speaking for Mr. Madden also. Could there possibly be any objection to this alteration.

The Chairman:—Mr. Milner, I do not know whether you wish to formally move an amendment. I am not prepared to alter the resolution, but I am prepared to put it to the vote as it stands. Time is getting on and the delay that is bound to occur by referring to District Associations will waste valuable and precious time.

Mr. W. A. J. Milner:—Then supposing we vote in favour of this now, and when we go back we get instructions against the proposal later on? I do not think we will, but it might be possible.

The Chairman:—From what the South Indian Association have already stated—you have seen a copy of their Sub-Committee's Report—I think there is nothing to fear on that score. I have also read to you the letter from the Chairman of the South Indian Association.

Mr. F. E. James:—After eliminating entirely personal matters, so far as the outlines of the scheme are concerned, I did talk that over with the representatives of the South Indian Association in London, and they expressed themselves, at that time, entirely in agreement with the scheme. I think Sir Edward Benthall is convening a further meeting in Bengal at the end of this month to discuss further details. But London is aware of the general outlines of this scheme apart from the personal aspect of it, and it is in that we are more interested than anything else. There is no doubt that the South Indian Association has personally advised us in support of the general scheme, and I can say this without fear of any contradiction, whatever, that their main desire is to retain the unity of this Association in Political matters. That was impressed on me several times by Mr. Pinckney.

The Chairman:—In view of what has been said and the assurance given, I hope you will support this scheme when the resolution is put to the vote.

Mr. W. A. J. Milner:—I am quite prepared to vote in favour of it provided it is recorded in the Minutes that it is subject to confirmation by our Association. I only want that to be recorded in the Minutes.

Mr. F. E. James:—One matter I might explain which might not be clear to members present, and that is relating to the urgency of passing a resolution on the general scheme.

Again eliminating the personal aspect as regards Mr. A. or his assistant Mr. B., I may say that I am going to Calcutta on Saturday night and there I have to meet the President of the Associated Chambers of Commerce and other Commercial representatives in regard to the Central Political Fund. Before I go to Calcutta, we are having a meeting of the Local Fund in Madras on Friday, and I am very anxious indeed that I should go to them with a resolution passed at this meeting, which, in a sense, pledges the U.P.A.S.I. to the general scheme, and in particular expresses the view that this fund should be used for representation in the States Legislatures. This last point is most urgent to be put down at once before the general scheme is worked out next month in Simla and is finally adopted in Northern India. That really is the urgency for passing a resolution on the general scheme.

So far as the personal aspect is concerned, we can wait for another week. It is the general scheme that is important and I am sorry that my own service is mixed up with it. Of course, that is a minor point as compared with the general scheme, which we can get through before the end of the year. It is not only affects us here, but also in Bombay where, as soon as I arrived, I went straight from the Boat to meet the European representatives there on exactly the same errand. But there I was dealing with another man and not with my own particular post. That is why the matter is really urgent, and I thought if I explained it, it might clear your mind on that point.

The Chairman:—Mr. James has fully explained the matter, Mr. Milner. Do you withdraw the stipulation that you just now made? Personally, I am not prepared to accept it.

Mr. W. A. J. Milner:—It would not affect the resolution.

The Chairman:—We should like the resolution to be passed unanimously.

Mr. W. A. J. Milner:—I can only vote for it subject to that stipulation.

The Chairman:—I regret I cannot agree to that. I will now put the resolution to the meeting. With your permission, gentlemen, I propose placing on record the acreage that voted in favour of this resolution.

A Poll was taken. 1770 District Association votes and all Firm Members present voted in favour. 262 District Association votes were withheld.

The resolution was carried nem. con.

Mr. C. H. Madden:—No opportunity has been given to the Central Travancore Association to express their opinion, but we voted in favour of it on our personal discretion. I do not think there is any objection to placing that on record?

The Chairman:—None at all.

Mr. C. H. Madden:—That will cover us?

Mr. Eric Hall:—Will you please have it recorded in the Minutes that I did not vote?

The Chairman:—Mr. Fowke, you had a question to ask Mr. James?

Mr. E. W. Fowke:—What will be the position of the European Association if the scheme materializes?

Mr. F. E. James:—It is contemplated that the European Association will also be re-organized and the re-organization will take the form of devolution and make the Provincial Associations of the Europeans united. The result of that would be that the rather expensive administration in the Calcutta office, if not altogether abolished, will be greatly reduced, which will release funds to pay for work in the Provinces. In the Districts, the European Association pays a contribution to the Political Fund and, in future, that contribution will be larger, and it is quite possible, that the Assistant Political Secretary, or the Assistant to me, will act as Assistant Secretary to the European Association. It may be asked why subscribe to the European Association when you have the other organization? I would point out that the proposed organization only deals with representation in the Legislatures, and then, (as in England you have your Parliamentary party members, the members of the House of Commons, and your great conservative organizations in the country and your great liberal organizations in the country) so in this country you must have an organization to which an individual can be mobilized in time of need, and which can supplement in the districts the work of the representatives in the Legislatures.

It is quite true that Mr. Baldwin is the leader of the Conservative Party in the House of Commons, but it is also true, as he knows to his cost, that from time to time he has to go and face the members of the Conservative Organization in the country. Similarly then you would have this Political Fund, but you must also have an organization of Europeans which will be the Constituency for your representatives in the Assembly or in the Council, an organization which may run amok or go astray, but you will be able to call them to account for their Stewardship in the Legislatures. Of course, in the Planting areas, I admit, the District Associations fulfill that function, but the European Association is still necessary in my opinion, and will be of far greater use than it has been in the past. Once we have put through the proposed changes, we will have devolved the responsibility of this organization much more upon the Provinces. Does that answer your question, Mr. Fowke?

Mr. E. W. Fowke:—Yes, thank you, Sir.

Mr. L. Garrett:—Mr. James, is it possible or will it be possible for you to arrange so that the Assistant Political Secretary might, perhaps, be able to represent the Mysore Planters' Association in the Mysore Legislative Council?

Mr. F. E. James:—It is difficult to answer that question off-hand, because there are other interests involved than those of the U.P.A.S.I., and those other interests have insisted in recent months upon having someone permanently in Madras. But it is a matter which might be considered.

Mr. L. Garrett:—Thank you.

Captain E. H. A. Travers Drapes:—May I detain you just for a moment before we leave this subject. I think our thanks are due to Mr. Langley for the time he has given up on our behalf in taking Mr. James' place in the Madras Council. It is not possible for me to enter upon a dissertation of his abilities, but you all know, I think, what it means to study politics now-a-days, and what sacrifices in the shape of time and energy it involves. If, as I am sure he has done, he has put our thoughts into words so ably in the Madras Legislative Council,

and has attended all those meetings, he has most ably represented us there, and I do not think we could have found a better man. I, therefore, wish to have the honour to propose a vote of thanks to Mr. Langley. (Applause).

Mr. W. K. M. Langley:—I must express my sincere thanks for the very kind words and for the extremely unnecessarily flattering remarks made about me. As I remarked in my speech on Monday, I felt it a very great honour indeed to be called upon to represent Planters in the Legislative Council. I always felt and do feel that I could not have been given my first introduction to politics under happier auspices.

RE-ORGANIZATION OF THE U.P.A.S.I.

The Chairman:—Gentlemen, no resolutions have been tabled under this item. I can give you but little information as to the results of the findings of the Re-organization Committee, but I am informed that the Section of the Committee that was appointed in London is now sitting, and we have had no communication from them so far.

LOCATION OF U.P.A.S.I. HEAD OFFICE

A full discussion took place in committee which it was decided not to publish.

The Chairman:—I move the following resolution.—

"That the recommendations of the Executive Committee be adopted and that they be given full powers to carry them to a conclusion."

The resolution was carried unanimously.

Captain E. H. A. Travers-Drapes:—Does this resolution give the Committee the power to carry through the move from Madras or only as regards the location and the purchase or lease of a property?

The Secretary:—It comes under the heading "Location of U.P.A.S.I. Head Office" and then it gives them the power of procuring a suitable building and it is only after they get a building that we will be able to make a move from Madras.

SUBSCRIPTIONS

Mr. Eric Hall:—With regard to the subscriptions, I have a resolution to move:—

"That the subscription payable by Rubber for 1933-34 be drawn from Rubber Reserve."

The Chairman:—You have heard the resolution. It is proposed by Mr. Eric Hall and seconded by Mr. A. R. Ross:—

The resolution was carried.

BUDGET AND FINANCE 1933-34

The Chairman:—Gentlemen, in order to regularize the resolutions that we passed at the General Meeting the other day, I have the following resolution to propose:—

"That the Executive Committee be authorized to revise the Budget for 1933-34 with a view to give effect to the resolutions passed at the Annual Meeting."

The resolution was carried.

ELECTION OF CHAIRMAN AND AUDITORS

The Chairman:—We will take up first the question of the election of the Auditors. I have the following resolution to move from the Chair:—

"That the present Auditors, Messrs. Fraser and Ross, be elected Auditors for the current year on the remuneration agreed upon."

The reason for the alteration of this resolution from its usual form is the fact that Messrs. Fraser and Ross have reduced their audit fees in connexion with the Labour Department.

The resolution was carried.

BUDGET AND FINANCE 1933-34

The Chairman:—I must apologize for omitting one resolution of which due notice was given. Mr. Jodrell has drawn my attention to it. I will move this resolution from the Chair. It is in connexion with what you passed at the Labour Meeting last March:—

"That the resolutions passed at the General Committee Meeting held in Coimbatore on the 29th March, reference the 10% commission on all recoveries by or through the Labour Department be brought into effect as from 1st August 1933, and that the Director be instructed to render a monthly statement showing the commission deducted in one sum."

The resolution was carried.

S.I.A. IN LONDON

Mr. F. E. James:—Before we pass on to the next item, I should like to be allowed to make one observation. When I was in London, I had the opportunity of attending the Annual Meeting of the South Indian Association, and I also had the opportunity of meeting Mr. Pinckney, the Chairman of the Association, two or three times. I think very few people realize the immense amount of work which Mr. Pinckney is doing in connexion with the South Indian Association. I think he attends the office of the Association every single day, and I should like to pass on to you what he told me in London on two occasions, namely, that, as Chairman of the Association, he is tremendously anxious to be of assistance to the U.P.A.S.I. He is desirous of bringing the South Indian Association and the U.P.A.S.I. closer together and he and his Committee are only anxious to serve the interests of the United Planters' Association. I am sure that he would approve of my conveying those sentiments to you on his behalf, and I should like to place before you the fact that I know of nobody in the South Indian Association who is keener on the work of the U.P.A.S.I. and who is more anxious to serve our interests than Mr. Pinckney himself. I am sure that one of the best things that could happen will be for him to pay a visit to one of our Annual Meetings on behalf of that Association. He said he would be pleased to do so, but he hoped it would be on an occasion when he could escape the monsoon voyage. (Applause).

ADDRESS TO VICEROY

The Chairman:—Gentlemen, I should like to inform you that the Viceroy is expected down in Madras about November or December, of this year. I should like to know if it is your wish to present an address to him on behalf of the U.P.A.S.I., and if so, whether you will authorize your Executive Committee to prepare such an address?

Mr. P. G. Tipping:—I think it is essential that the U.P.A.S.I. should present an address to the Viceroy.

The Chairman:—It was done in a similar case when Lord Irwin came down. I should like to have the feeling of the meeting. It will save time.

The proposal was carried.

ELECTION OF CHAIRMAN

The Secretary passed round the ballot papers and the votes were then counted.

The Secretary:—The result of the ballot for electing a Chairman of this Association for the ensuing year is a unanimous vote in favour of Mr. R. Fowke. (Applause).

Mr. R. Fowke:—Gentlemen, I am indeed greatly honoured by your electing me again this year as your Chairman. I can say no more than assure you that I will endeavour to do my very best in the interests of the Association. (Applause).

Mr. W. A. J. Milner:—Mr. Chairman and Gentlemen, I should like to propose on behalf of you all a very hearty vote of thanks to Mr. Fowke for the work he has done for us during the past year as Chairman. His duties have been indeed heavy and the past year one of great difficulty, but under his able Chairmanship the U.P.A.S.I. has emerged stronger than ever. Mr. Fowke in my opinion is the ideal Chairman, impartial, businesslike and tactful. The thanks of all Planters in South India are especially due to him for the work he has done in connection with the Tea Restriction Scheme. I ask you, gentlemen, to express your thanks to Mr. Fowke with the greatest acclamation. (Loud and Prolonged Applause).

Mr. C. R. T. Congreve:—Mr. Chairman and Gentlemen, I have asked the permission of the Chairman to speak, before this meeting closes, with reference to Sir Fairless Barber who is, I understand, retiring from India very shortly. He came out to Ceylon a great many years ago, and after a short stay there, he went to Thia Shola where he was resident for many years. Sir Fairless Barber was always a good Planter, keen on Political affairs as represented by the Planters' Association, and he attended our meetings here on many occasions. Between the years 1912 and 1919 he represented us, without a break, on the Madras Legislative Council, and, gentlemen, I do not think anybody who did not have an inside knowledge of the work of the U.P.A.S.I. during the period of the War, would realize what we owe to Sir Fairless Barber and Mr. Nicolls. In those days we had no big Secretariat Office as we have now. Every question that came up had to be dealt with by Sir Fairless Barber and the Chairman. Matters such as getting the Government to agree to allow Tea to be exported and the Control of Tea fell on his hands and I do not think it would be possible to realize the amount of work that he then did for us. He stayed out for six

years without going Home and the strain of work must have told on his constitution very severely. In 1918 he received the honour of Knighthood from His Majesty the King-Emperor and, I think, that shows the appreciation we felt for him not only in Planting Circles, but throughout South India, and it also shows what a Great Man he had been in the Madras Legislative Council. I should like to place on record our appreciation of his services and I wish him *bon voyage* home and rest after his strenuous work in this country. (Applause).

The Chairman:—Now, gentlemen, before closing the meeting, I should like to thank Mr. Milner for the very kind remarks that he made about my work during the past year. I should also like to thank you, gentlemen, for the way in which you received those remarks.

As I have just said, I will do my very utmost to carry on the work of the Association to the best of my ability. I know I will receive the same co-operation and assistance, that I have received in the past year, from the future Executive Committee. (Loud and Prolonged Applause).

I now declare the meeting closed.

SCIENTIFIC DEPARTMENT
REPORTS
1932-33.

TEA SCIENTIFIC DEPARTMENT

Administration Report for 1932-1933

Staff:—Dr. W. S. Shaw was on home leave from May until November 1932, during which period the supervision of the work of the Department was carried out by Mr. K. B. W. Jones. Mr. Ananda Rao and Mr. Subba Rao, the Entomologist and Mycologist respectively, commenced duties in the last week of April 1932.

Buildings:—No addition in the form of buildings has been made during the current year. In view of the increased Indian Staff additional buildings are required, and it is regrettable that lack of funds should necessitate two of the Staff obtaining quarters away from the Station. It is to be hoped that this condition will be remedied whenever possible.

Advisory Work:—During the year 926 letters were received and 975 despatched. Enquiries concerning pests and diseases were not much in evidence, but showed an increase on previous years. Letters asking for information on Tea Manufacture and soil maintenance have been conspicuous.

Touring:—During September, the Assistant Tea Scientific Officer visited the Anamalais. The objects of this visit were to obtain some knowledge of the manner in which theories of withering control could be applied in practice and to demonstrate the applicability of the suggestions made in this connection. Mr. Jones spent some days in the Murugalli and Mukottu Mudi factories.

An extended tour in the High Range commencing in January was made by the Tea Scientific Officer, the subjects considered being connected with general cultivation and manufacture. On completion of this visit, the Tea Scientific Officer proceeded to South Travancore.

Manufacture:—It has been decided to hand over this section of the work exclusively to the Assistant Tea Scientific Officer. With the increasing demand for attention to factory details, and control, the concentration of one officer on these aspects was necessary. As a result of investigations on theotannin, a scheme for control of withering according to theotannin content has been evolved, and Mr. Jones has been in touch with a number of estates in this connection. As a result of this, a number of modifications and improvements on the original scheme have been made, and these are indicated in the attached report of the Assistant Tea Scientific Officer.

Diseases:—Root Rots and Pink Diseases are the outstanding diseases prevalent in South India. Success has attended the application of Sulphate of Iron to Root Rots generally in South Travancore, and to *Poria* in the High Range. Although in this latter district, this chemical does not represent a satisfactory control for *Rosellinia*, there is no doubt that it is the most satisfactory soil disinfectant at present available for use in tea. Its fungicidal properties have been investigated by the Mycologist.

Pink Disease is still the cause of anxiety in certain districts, and is under investigation. A considerable amount of information con-

cerning the causative agency has been accumulated and is included in the Mycologist's Report.

One interesting aspect of the disease is the possible influence of the time of pruning. It is generally admitted that given healthy tea, the best time for pruning is immediately after the monsoon. From the Mycologist's Report it will be noted that the fungus is most evident under moist conditions, its activity decreasing with the advent of, and during, the hot weather. To prune tea during, or at the latter end of, the monsoon exposes a number of pruning cuts, and later on tipping points, to the entry of the fungus at a time when it is most active. It would seem therefore advisable to modify one's conceptions of time of pruning according to the type of disease prevailing in the district. This would require pruning being done in Pink Disease districts at a time when the hot weather has set in, and it is suggested that fields seriously affected by Pink Disease would respond beneficially to pruning in late December, January.

Spraying as a control of Pink Disease appears to have been abandoned, but it is hoped that further attempts will be made. It may be that, as in the case of coffee leaf diseases, the most important aspect of spraying as a control of this disease, is not the type of spray but the time when it is applied. It is to be hoped that the study of the fungus at present being carried out by the Mycologist will throw some light on this aspect of the control of Pink Disease.

Pests:—From the Entomologist's Report it will be noted that three pests of major importance have been under examination. The one which has been investigated most thoroughly is Tortrix mainly on account of the material required being available upon the Experimental Station. The observations which have been made are interesting, but doubt still remains as to the exact position in which the eggs of the "Small Tortrix" are deposited. Egg masses, which form the basis of control of the Ceylon Tortrix, have not been recorded in South India up to the present, and it is appropriate that two such egg masses of the "Large Tortrix" should have been found by the Entomologist. These egg masses have proceeded, under observation, through the larval stages to the moth condition, and the characteristics of the moths have been studied. The work represents a distinct advance in our knowledge of the South Indian Tortricids; and towards obtaining an efficient control.

Planters in Helopeltis districts may be somewhat disappointed in the work done on Helopeltis, but it must be remembered that the material at hand is very limited. The Entomologist is proceeding to Travancore in June 1933 to make an extended study of the pest *in situ*.

It is necessary here to issue a cautionary statement with regard to a pest, which has reached alarming proportions in Ceylon, namely, the Nettle Grub. This grub has been received from a number of estates this year, and control measures even if laborious and expensive should be taken immediately, to prevent this pest reaching the stage of causing anxiety.

Chemical Investigations:—Owing to stress of other work, the continuation of the chemical investigation of leaf components was postponed until the return of the Tea Scientific Officer. Work on Tea Pectin has been continued and the nature and characteristics of preparations of this substance have been determined. Its exact significance in changes occurring during manufacture must await the examination of

the pectic bodies present in "made tea," but we now possess a full knowledge of the condition in which they are present in green leaf—the first essential of any investigation dealing with changes induced at the various stages throughout manufacture.

One of the most interesting chemical observations made during the year is the possibility of isolating a component of "made tea," viz., Caffeine oxytheotannate, which on warming with water emits the characteristic aroma of tea—different aromas being obtained according to the source of the substance. It has no connection whatsoever with essential oil, and we arrive at the conclusion that a further statement regarding the chemistry of tea is erroneous, viz., that the aroma of tea is due exclusively to an essential oil.

There is no doubt that the suggestion made by early workers that Caffeine does not combine with theotannin has diverted the line of research from one of the most important and significant channels. Even in 1932, North East India Workers have stated that Caffeine oxytheotannate was not present in tea, and still maintained the theories of colour in tea being due to phlobaphenes, and aroma, due to essential oil.

It will be noted by investigators that the preparation of Caffeine oxytheotannate from tea is a very simple procedure; its analysis with regard to its content of Caffeine and Theotannin may be performed within 24 hours of its preparation; and the characteristic aromas obtained from the product prepared from high, medium and low elevations teas easily ascertained. It is maintained that this substance is the one of prime importance in tea, and it is hoped that this work will be repeated by other investigators. Full details and further remarks, demonstrating a new significance of theotannin, are given elsewhere in this Report.

Another substance has been isolated which is of importance at least with respect to colour in tea infusions. Its actual composition is imperfectly understood at present, the important point at present known being that it is a further compound containing theotannin. Some 40 per cent. of the compound consists of theotannin; it possesses an ash content varying according to the source from 18 to 30 per cent. and there is an unknown fraction consisting of 20 to 30 per cent. concerning which investigations are at present being instituted. It is just necessary to indicate further, firstly, that it is exceptionally soluble in water giving a strongly coloured solution,—indeed, it gives weight for weight in a given volume of water a considerably stronger colour than that produced by Caffeine oxytheotannate—the main colour factor in an infusion of tea; secondly, that it possesses all the characteristics which might be expected in a synthetic soluble enzyme. It is discussed further in the chemical section.

Employment of surplus Tea:—This question has frequently come up for discussion. From the knowledge of the chemistry of tea obtained from the investigations carried out, it is considered that there are possibilities of using surplus tea. A report on this subject will be drawn up for the Executive Committee, and it is hoped that the necessary facilities for carrying out investigations in this direction will be made available.

Acknowledgements:—It gives the Staff of this Department pleasure in recording acknowledgements to the following:—The Managers of the estates visited for their hospitality and assistance; those Managers who permitted experiments to be carried out on their estates in connection with Manuring and Manufacture; The Director, Imperial Institute of Entomology for the identification of insects; The Government

Entomologist, Ceylon, for forwarding specimens of allied tea pests in Ceylon; The Government Entomologist and Mycologist, Madras, for their assistance in identification; and the Overseas Potash Export Company, Ltd., for soil analysis carried out and for the supplying of Potash for experimental purposes.

I wish to record here my personal thanks to the Tea Scientific Subcommittee, consisting of Messrs. Fowke, Cameron and Jodrell for their ready co-operation and for the interest they have shown in the work and progress of the Department.

PLOT DETAILS.

1. *Old Tea Plot*:—

(a) *Yield*:—The yield from the old tea for the whole year averaged 401 lbs. of made tea per acre. This is a reasonable yield for tea of this nature, particularly since more than a third of the acreage, Section C, was left out of plucking from the middle of December onwards in an attempt to promote better wood.

The Monthly Yields were as follows:—

MONTH.	Green leaf lbs.		Made Tea per acre.	
	During the month.	Total.	During the Month.	Total.
April 1932	570	570	47.5	47.5
May "	518	1088	43.2	90.7
June "	623	1711	51.9	142.6
July "	380	2091	31.7	174.3
August "	568	2659	47.3	221.6
September "	487	3146	40.6	262.2
October "	421	3567	35.1	297.3
November "	426	3993	35.5	332.8
December "	341	4336	28.4	361.2
January 1933	167	4501	13.9	375.1
February "	132	4633	11.0	386.1
March "	174	4807	14.5	400.6

(b) *Monthly Pruning Experiments*:—The cycle of pruning on sub-plots was completed and these plots have all come into bearing again. The following table gives the number of plucking rounds which each plot missed as a result of being pruned. The corresponding figures for the previous cycle are also given:—

Month.	Novr.	Decr.	Jany.	Feby.	March.	April
Cycle 29|30	17	14	11	9	11	14
Cycle 31|32	15	16	17	22	18	21
Month.	May	June	July	August	Sept.	October
Cycle 29|30	12	14	17	17	13	12
Cycle 31|32	19	19	17	17	15	15

Differences in the distribution of rainfall in the two periods was not very great but in the second cycle the rainfall was decidedly heavier particularly in July. The pruning in the second cycle was very light and very little cleaning out was done. Records of yields have not yet gone far enough to be able to give a comparison on these grounds between the effects of the two prunings.

(c) Sub-plot Yields:—In the last Annual Report the hope was expressed that it might be possible to start experiments on a certain number of plots of the old tea. The continuation of the yield records showed that variations were still too great and the project has been temporarily abandoned. It will probably prove impossible to use these plots for anything more than general observation and for demonstration purposes.

2. 1926 Plot:—This plot was supplied up in June but as the excess of rain in July seriously affected the development of many of these supplies, about 25 per cent. of these were re-supplied with improved results.

Grass still presents a serious problem on this plot. Attempts were made to establish *Indigofera*, and *Centrosema* on this plot but these cover crops could not compete with the grass. After the monsoon, green gram was sown and this grew quite well. Unfortunately, in the interests of tidiness it was necessary to dig this in before the maximum benefit was derived from the cover formed. After the digging the grass came on again nearly as strongly as before. It is interesting to note that there is an increase in the amount of grass coarser than the *haliari* which has been predominant in the past. As this grass has not spread quite so fast this may be considered to be an improvement.

The whole plot was in regular plucking throughout the year. Owing to the number of immature plants the yields are still small but show a slight increase on the previous year.

Sub-Plot	Area	Yield of made tea per acre 1931/32.	Yield of made tea per acre 1932/33.
1	.34 acres	172	292
2	.34 acres	254	349
3	.34 acres	170	199
4	.27 acres	95	88
5	.55 acres	61	70
6	1.16 acres	60	94

Sub-plots 1, 4 and 6 have been slightly reduced in size in order to obtain a more regular outline.

3. 1927 Plot:—This plot has been in regular plucking throughout the year and the yield has been most satisfactory—a yield of 526 lbs. of made tea per acre being obtained.

4. 1928 Plot:—This area has been in regular plucking throughout the year—the yields from the various sub-plots were as follows:—

Sub-plot.		Yield in lbs. made tea per acre.
15	Betjan Low pruned	441
16	Dangri "	351
17	Dhonjan "	376
18	Nellimunda "	411
19	Betjan High pruned	529
20	Dangri Low pruned	317
21	Dhonjan High pruned	743
22	Nellimunda Low pruned	370
23	Bonaccord Contour	175
24	Wild Burma "	86
25	Dhonjan "	159
26	Bonaccord "	88

The yields of the contour planted portion are relatively disappointing. The individual plants in this area are not nearly as far advanced as those on the main block consisting as they do of a large percentage of single stemmed supplies. Further inter-planting is proposed on this area which will also be pruned in the coming year.

The main block, comprising sub-plots 15 to 18, has done very well indeed as the yield figures show. No. 15 in particular did very well until the beginning of the dry weather, but subsequently the flush on the plot decreased very badly.

The high pruned and low pruned plots form an interesting comparison. It will be seen that the high pruned plots have given an exceptionally good crop and so far they have maintained a considerably higher yielding capacity than the corresponding low pruned plots. It must be remembered, however, that they have been in plucking longer, and consist of much larger bushes, and while it is admitted that the high pruned bushes have certainly given large crops earlier than the low pruned bushes, it is by no means assured that this superiority will be maintained over the next pruning cycle.

The single stemmed bushes in the high pruned plots were pruned at 9 inches in July.

Sub-plots Nos. 15 to 18 were again sub-divided during the year each into 4 parts and weekly yields from these were recorded. As a result of the information gained it has been considered possible to rearrange the sub-division so as to obtain five small plots from each, thus giving 20 plots in all. Yields from these small plots are being recorded with a view to a study of initial fertility. This area seems to be the most promising on the Station as a site for exact experiments.

5. 1929 Plot:—This plot has been in regular plucking throughout the year although no pruning has been done subsequent to the 2 inch cut in May 1931. It was found that an adequate spread was obtained as a result of this cut. Moreover observations on the 1926 and 1927 plots have led to the conclusion that if a second pruning at about 6 or 9 inches is carried out before the wood developing after the 2 inch cut has sufficiently matured the new branches that arise tend to be mere continuations of the branches previously existing and very little improvement of the frame occurs.

The yield from the 1929 planted area has been good in consideration of its age. For preliminary records it has been divided into 3 sub-plots—the annual yields of these have been 338, 189 and 309 lbs. of made tea per acre respectively.

6. 1930 Plot:—This area has made good progress during the year. It was pruned down to 2 inches in April and has since made very good growth. It is hoped to sub-divide this area into a convenient number of small plots and begin yield records during the coming year.

Unplanted Areas:—The planting of fuel trees in the swamps and waste land was extended during the year, grevilleas and gums being used for this purpose. It was hoped to plant the area known as the Woodbriar slope, with stump plants derived from Java seed but although seed was obtained the germination was so poor that this project had to be abandoned.

Meteorological Notes:—The weather during the year 1932'33 was noteworthy owing to the exceptionally heavy rains obtained in May and in September and October. The South West monsoon rains began during the third week of May and continued until the end of October. The period of dry weather, December to March, was, as usual, almost rainless but the atmosphere was not nearly as dry as has been observed in previous years. The maximum temperatures observed in this period were also somewhat lower than average. It is possible that this may have been partly due to the after effects of the monsoon but it is also possible that the growth of tea in the immediate neighbourhood of the recording station may have had beneficial influence. The total rainfall was over 25 inches in excess of the average for the previous 5 years, but the number of days on which rain fell was less than the average by 12.

Month.	Rainfall. in inches	Days with rain.	Temper- ature		Relative Humidity		Vapour Pressure		Cloud.	
			Maxi- mum	Mini- mum	8-30 a.m.	3-0 p.m.	8-30 a.m.	3 p.m.	8-30 a.m.	3 p.m.
			°F	°F	%	%	mms	mms		
April ...	3.75	10	83.2	65.0	84.8	70.0	23.2	23.9	1.4	7.1
May ...	19.70	19	78.2	65.3	91.2	80.3	23.0	23.7	6.0	8.2
June ...	7.60	21	74.0	65.1	90.7	87.3	22.1	23.4	8.3	9.3
July ...	30.45	31	71.8	64.7	96.5	91.0	21.6	22.6	9.9	9.7
August ...	9.45	21	75.4	65.0	95.8	86.3	23.6	24.3	6.8	8.0
September...	14.59	19	74.5	63.8	91.3	89.9	21.0	22.9	6.3	8.0
October ...	15.70	22	75.4	64.2	94.8	88.7	22.9	23.6	6.5	8.5
November ...	4.14	9	74.5	63.0	Not recorded				5.7	7.6
December ...	0.04	1	75.5	59.9	89.6	66.4	18.4	18.8	2.3	3.8
January ...	0.00	0	74.3	58.0	91.3	57.5	17.0	17.4	3.1	3.1
February ...	0.17	2	82.9	60.7	87.0	56.1	19.3	19.8	1.9	3.2
March ...	0.54	4	85.0	62.4	84.1	56.6	20.9	20.3	1.5	4.6
Totals ...	106.13	159								

REPORT ON CHEMICAL INVESTIGATIONS.

During the year under review studies were continued on theotannin, its associated compounds, and the pectic substances in tea. The amount of data concerning these substances which has been accumulated is too large for inclusion in this Report. The technical details have therefore been reduced to a minimum compatible with the conclusions of a practical nature which have been derived from them. A full account is being arranged for purposes of record and for the perusal of those interested in them.

1. THEOTANNIN IN COMBINATION WITH CAFFEINE.

The question of a compound of theotannin and caffeine entering into an infusion of tea appears to have been a matter of doubt amongst certain investigators of tea. It was considered that some attempt should be made to elucidate the problem. The following account describes the experimental evidence which demonstrates that caffeine and theotannin are in a combined form in a tea infusion. Further, as a result of this investigation, an attempt will be made to show that this combination is the most important ingredient in the infusion.

Preparation of the compound of theotannin and caffeine:

Finely powdered dried green leaf, or made tea, is extracted with warm alcohol, the alcoholic extract being filtered through muslin. The resulting filtrate may be concentrated to a convenient bulk and added to an equal volume of 2 per cent. sodium chloride solution. This serves to precipitate the bulk of the green colouring matter. Alternatively, the salt may be added to the alcohol-water mixture until it is noticed that the green coloring matter has been satisfactorily flocculated. The precipitate is filtered off on fluted filter papers. The filtrate is then shaken up thoroughly with benzene or ether to remove the remaining traces of coloring matter, this process also removing essential oil, if any is present. The alcohol-water layer is then run off into a porcelain dish and the volume reduced to approximately a third of the original volume on a steam bath. The dish is then removed and left to stand in a cool place overnight.

A gummy substance settles out, leaving a clear supernatant liquid, which can be easily decanted almost completely without disturbing the gum. The gum is the caffeine theotannate, in the case of green leaf, and caffeine oxytheotannate in the instance of made tea. It has been thrown out of solution by virtue of its insolubility in cold water.

The compound is washed thoroughly by stirring up in a number of fresh additions of distilled water, and allowing to settle again. After the final decantation, the gummy substance is removed from the sides of the dish by means of a spatula, and placed in a desiccator to dry. It may then be pestled to give a light buff (green leaf) to brownish (made tea) amorphous powder.

Yields of the substance up to 15 per cent. of the leaf taken may be obtained, but this is done at the expense of the purity of the product, which would contain too high a content of the salt. Yields up to 10 per cent. showing a purity of 98 per cent. may be obtained by eliminating concentration of the alcoholic extract and undue concentration of the final aqueous solution. In the following table of analytical results, the first three samples were obtained from concentrated solution, the remaining four employing the minimum of concentration.

Analytical Results:—Theotannin was estimated by the formaldehyde method. To commence with, the caffeine was estimated by direct extraction. Having found however that a nitrogen determination gave results agreeing with those obtained by direct extraction, the presence of nitrogenous substances other than caffeine was improbable, and therefore the more accurate nitrogen determinations were made as a measure of the caffeine. The results obtained on the various samples were as follows:—

Sample	Material	Source Elevation	Ash	Theo- tannin	Caffeine	Total	Ratio of Caffeine Tannin
1	Green Leaf	Medium	1.8	73.5	16.1	91.4	1:4.57
2	Green Leaf	Medium	1.0	73.5	16.0	90.5	1:4.59
3	Made Tea	Medium	1.8	75.8	16.5	94.1	1:4.74
4	Green Leaf	Medium	0.6	78.7	18.2	97.5	1:4.33
5	Made Tea	High	0.6	78.5	19.45	98.55	1:4.04
6	Made Tea	High	0.8	76.2	20.25	97.25	1:3.77
7	Made Tea	Low	0.25	83.35	17.30	100.9	1:4.82

In order to avoid complications, it is advisable to direct attention to the results obtained for the made tea samples. These samples consist of caffeine oxytheotannate. The effect of the degree of oxygenation must be kept in view, but the influence of this factor does not influence the main suggestions made here, especially those of a practical nature.

Differences in caffeine oxy-theotannates from varying elevations:—Abstracting from the above table the figures for the relationship between caffeine and theotannin in the samples derived from teas from varying elevations, the following are obtained:—

Average of High Elevation Tea:—1 : 3.90.

Medium Elevation Tea:—1 : 4.60.

Low Elevation Tea:—1 : 4.82.

A number of reasons may be advanced for this variation in relationship, and each may be considered in turn:—

(a) **Inaccuracies in analytical procedure:**—The caffeine was determined from nitrogen figures obtained by the Kjeldahl method, the accuracy of which is well established. The theotannin was estimated by the modified formaldehyde method, which has been demonstrated to give a high degree of accuracy. (See "Theotannin"). The large variations required to produce the differences in relationships shown cannot therefore be ascribed to inaccuracies in the analytical methods adopted.

(b) **Precipitation of caffeine and theotannin in different proportions according to their respective concentrations:**—It is well known that alkaloids and tannins form a precipitate consisting of varying amounts of the reactants, when these are mixed in varying concentrations. It has, however, also been established that it is necessary considerably to alter these concentrations in order to obtain any appreciable difference in the composition of the resulting alkaloidal tannate.

Now Deuss has shown that the content of the leaf with respect to caffeine remains practically a constant throughout the year, provided the leaf is taken from the same field. For purposes of demonstration the content may be taken as 4.5 per cent. The theotannin content varies with climatic conditions, and as shown in "Theotannin" the variation takes place over a range between 22 and 28 per cent. The relationship of caffeine to theotannin in the leaf ranges therefore between 1 : 5 and 1 : 6. Such a change would not materially alter the composition of the caffeine oxytheotannate, in the resulting tea.

It is known further that high elevation teas contain a higher percentage of theotannin than low elevation teas, but the difference is not very appreciable, and would further be offset somewhat by a slightly increased caffeine content. The relationship between the caffeine and the theotannin would not range far outside the limits of 1 : 5 to 1 : 6 already shown.

The evidence available is sufficient to indicate that elevation and seasonal variation in theotannin would not produce an adequate difference in the concentration of the caffeine and theotannin to affect the composition of the compound formed between the two substances.

(c) The concentration of the solution from which deposition of the caffeine oxytheotannate takes place:—In preparing the compound no definite amount of alcohol was employed for a given quantity of the leaf; further, no definite concentration of the alcohol-water solution was aimed at apart from that consistent with obtaining a pure product. Preparation of the compound from the same tea might be expected to show differences if these points were of significance whereas the two instances of duplicate preparations (green leaf and high elevation tea) showed good agreement in the analytical results.

(d) Inconsistency in the molecular constitution of one of the reactants:—The molecular constitution of caffeine has been definitely established. The same cannot be stated concerning theotannin. In the publication on "Theotannin" an endeavour has been made to show that theotannin as isolated from the usual two leaves and a bud is not a single tannin. It was defined as a mixture of tannins, each one differing in chemical constitution from the others comprising the mixture. Thus, the theotannin in the bud, differs from that in the first and second leaves; further, the theotannin derived from two leaves and a bud would vary according to the percentage composition with respect to each member. If such occurs in different members exposed to identical climatic conditions, there is every possibility of a change in the constitution of the theotannin derived from high elevation tea as compared with that from lower elevation teas. This aspect offered a useful method of approaching an explanation of the variation in the caffeine-theotannin relationship found to exist between samples of caffeine oxytheotannate obtained from teas from various elevations.

For a satisfactory explanation it is advisable to have some conception of the molecular proportions of the caffeine and the theotannin in the compound. From the relationships shown it may be calculated what weight of theotannin is in combination with 194 grams (1 gram molecule), of caffeine. The weights obtained are as follows:—

High Elevation	..	756	grams theotannin
Medium Elevation	..	882	" "
Low Elevation	..	936	" "

All investigators of tea agree that the molecular weight of theotannin is in the neighbourhood of 400, and for purposes of demonstration, Deuss'

figure of 404 may be taken, with the assumption that it is a constant. The molecules of theotannin in combination with 1 molecule of caffeine may then be determined by dividing the weights of theotannin shown in the above table by 404. The number of molecules would then become:—

High Elevation Tea	..	1.87
Medium Elevation Tea	..	2.18
Low Elevation Tea	..	2.32

It will be clear from the first two forms that molecular combination takes place in the molecular proportions of one of caffeine to two of theotannin. In the third case, the possibility of combination in the proportions of 2 : 5 is present, but it is improbable in view of the first two instances, and the similarity in the relationship of caffeine and theotannin from which the compound was formed. The analytical procedures would not be responsible for differences in the molecular combination varying from 1.87 to 2.32. One is therefore forced to the conclusion that the molecular combination is consistently in the proportion of one of caffeine to two of theotannin, and the figure responsible for the divergence from this value of 2 is the assumption of the constant molecular weight of theotannin at 404. In other words, one arrives at the important conclusion that the molecular weight, and hence the molecular constitution of theotannin, is a variable depending upon the source of the leaf.

Neglecting for the present the effect of the addition of oxygen to the molecule, which takes place during manufacture, and which is practically standard, some conception of the average molecular weight of the theotannin mixtures from various sources may be ascertained. It is only necessary to divide the weight of theotannin shown to be combined with 194 grams of caffeine by 2, to give the molecular weight of the theotannin, as follows:—

High Elevation Molecular Weight Theotannin	..	378
Medium Elevation " " "	..	446
Low Elevation " " "	..	467*

It must be emphasised that the figures shown are for oxytheotannin, and until a satisfactory figure for the number of atoms of oxygen taken up during manufacture has been established, the true molecular weight of the unchanged theotannin cannot be stated. It may be taken from results already obtained for the degree of oxygenation which has taken place, that the number of oxygen atoms is consistent and definitely would not differ in the cases of high elevation tea and low elevation tea to an extent sufficient to explain a difference in the molecular weights of the oxy-derivatives of as much as the 89 indicated above. The main point is that the foregoing serves as the first positive proof that theotannin is not a consistent substance, and this point bears a practical significance.

PRACTICAL OBSERVATIONS ON CAFFEINE OXYTHEOTANNATE.

(a) *Aroma and flavour*:—Probably one of the most interesting features of this investigation on caffeine oxytheotannate is the disclosure of its relation to aroma in tea. Aroma invariably has been associated with an essential oil, but in view of the small amount of this substance in tea, some doubts have been entertained as to whether it represented a full explanation. It is undoubtedly responsible for a certain aromatic effect, but its importance in this connection is small compared with that of caffeine oxytheotannate, or more strictly speaking, the oxytheotannin.

Thus, a small quantity of the freshly prepared caffeine oxytheotannate obtained from high elevation tea, when boiled with water emitted the fragrant aroma characteristic of the aroma of high elevation tea. The corresponding compounds from medium and low elevation teas fail to produce this smell, and emit a strong fruit (grape) aroma, differing also amongst themselves.

Now it will be clear that since caffeine oxytheotannate is present, at a conservative estimate, to some 300 times the amount of essential oil, and allowing for the differences in the capacity, or intensity, of aroma to be derived from these two ingredients, it must be considered the most important contributor to the aroma produced in an infusion of tea.

It might be contended that the caffeine oxytheotannate samples were contaminated with the essential oil, but the method of preparing the compound introducing evaporation, and extraction with benzene or ether (in which the essential oil is easily soluble) precludes the presence of essential oil in the final product.

It has been shown in the "Theotannin" publication that theotannin consists of a "side chain" or accessory group attached to a main phenolic nucleus. It was further indicated that variations in the theotannin molecule were due to alterations in this side chain. It would seem that the whole problem of aroma in tea centres round the identity of this side chain. The difficulty of obtaining fresh green leaf from various sources prevents the investigation necessary to determine whether the unchanged theotannin gives the aroma, but on all the evidence available, it would appear that enzyme action must come into play resulting in the absorption of oxygen. Now, further, it has been shown in the publication mentioned that it is the side chain which is responsible for the absorption of oxygen during normal manufacture. The significance of the side chain thus becomes paramount, as its regulation throughout manufacture should determine the production of flavour and aroma, and as will be indicated, the colour of a tea infusion.

The question of flavour is one which must depend upon the definition of flavour. If we accept flavour as an attribute of tea depending upon taste and aroma—the normally accepted meanings of the term—then caffeine oxytheotannate becomes the basis for such in a made tea infusion. Its relation to aroma has been indicated; theotannin has a well pronounced taste; the pungency of caffeine oxytheotannate is positive, and if aroma varies with the chemical constitution of the theotannin molecule, it is easily conceivable that taste will also conform with such variations. The individual samples of caffeine oxytheotannate gave different tastes, but not of any outstanding order; this may be attributed to the comparatively poor differentiating sensitiveness of the palate, and to the masking effect of pungency. With respect to this latter characteristic, the high elevation samples were milder than those prepared from lower elevations.

(b) Colour:—A satisfactory explanation of the production of colour in tea has been suggested in the publication on Theotannin,—an explanation based upon the formation of caffeine oxytheotannate. Previous explanations were based upon the formation of phlobaphenes, the so-called "red" and "brown" tannins.

Both the explanations laboured under the same weakness, *viz.*, that neither phlobaphenes, nor caffeine oxytheotannate, had been isolated naturally from a tea infusion. It is twenty years since Deuss first

suggested the phlobaphene theory of colour; although other investigators have accepted Deuss' explanation, and have complicated the problem by the suggestion of still more phlobaphene groups being formed in addition to the "red" and "brown" tannins of Deuss, not one has been isolated from a tea infusion directly. This weakness in the caffeine oxytheotannate theory has been overcome, and the substance may be easily isolated and its characteristics determined.

There is unfortunately, no means available at present for carrying out a satisfactory comparison of colour. Judging, however, from the colour produced by dissolving caffeine oxytheotannate (0.5 grams) in hot water (400 ccs.) in order to estimate the theotannin, there is no necessity to introduce any complex phlobaphene theories into the problem, as caffeine oxytheotannate represents a satisfactory explanation of the major portion of the colour produced.

Thus, the usual amounts of tea employed by tea-tasters are approximately 2.8 grams of tea in 125 ccs. of boiling water, infusion proceeding for 5 minutes. If only half the total caffeine oxytheotannate be taken as being extracted in this time, the minimum amount of this substance in 125 ccs. of water would be 0.21 grams. This concentration is stronger than that in the solutions mentioned above for the estimation of the theotannin in caffeine oxytheotannate, yet the latter gives a colour easily comparable to that produced in the tea taster's cup.

(c) *Creaming down of tea*:—This phenomenon, it is well known, is due to a group of substances, which are soluble in hot water, and insoluble in the cold. This creaming down group may be largely precipitated by the addition of a small quantity of mineral acid. The bulk of the precipitate is soluble in alcohol, and may be identified as caffeine oxytheotannate. The portion insoluble consists mainly of pectic substances, and others whose identity has not been experimentally proved. Now water soluble pectin only gives a slight turbidity (colloidal) in cold water, whereas caffeine oxytheotannate is thrown down as a precipitate from strong solution. Although other substances undoubtedly contribute to the group of creaming down substances, the actual creaming down must be ascribed mainly to the caffeine oxytheotannate, which on being thrown out of solution carries with it a certain amount of the other ingredients.

(d) It might be appropriate to introduce here a short discussion on the hopes which have been entertained of inducing a high elevation flavour (taste and aroma) into medium and low elevation teas. It is felt that such hopes can never be realised. Attempts to do so by the employment of high elevation micro-organisms have not been successful; the claims made that certain types of machinery offer a solution, have still to be substantiated. The whole secret of flavour is that it is an intrinsic quality of the leaf, endowed upon it by the particular form of theotannin contained in it. In other words, flavour is present in the leaf before it reaches the factory.

No machine, or system of manufacture, can alter this fundamental quality of the leaf; the best that can be hoped from these is that they will serve in yielding the maximum amount of available specific flavour and quality, which may be expected from the particular green leaf supplied. Every district with distinctly varying conditions of growth may be expected to give a peculiar flavour of its own.

It is considered that the object of good manufacture should be to ensure that the final made tea evinces in the cup the maximum of those desirable characteristics which it is possible to obtain from the green leaf.

2. A NEW THEOTANNIN DERIVATIVE.

During the course of the investigations on the pectic substances of tea, it was observed that, after the complete extraction of the leaf with alcohol, followed by aqueous extraction of the pectin, the filtrate (alcoholic) after the precipitation of the pectin with 70 per cent. alcohol was still strongly coloured. This colour could not be attributed to the caffeine theotannate or oxytheotannate as the preliminary extraction with alcohol removes these compounds. It was concluded that there was another substance present responsible for the colour. On concentrating the alcoholic solution down to small volume, and adding absolute alcohol, a bulky precipitate was obtained. As it was considered that the role of this substance could not be negligible when it was present in such quantities, an investigation of its nature was commenced.

It may be prepared as follows:—Powdered dried green leaf, or made tea, is extracted successively with 90 per cent. alcohol, until the final alcoholic extract is almost colourless, and gives only a slight coloration, if any, with ferric chloride.

Extraction is then continued with 40 to 50 per cent. alcohol. This removes the new substance together with small quantities of pectin. The latter is precipitated by increasing the strength of the alcohol in the extract up to 70 per cent. and it is filtered off. The resulting filtrate is evaporated down, preferably under reduced pressure, until the bulk of the alcohol has been removed. The remainder is then extracted with ether to remove colouring matter, and the evaporation under reduced pressure continued until the solution takes on a syrupy consistency. The syrup is diluted with some 40 per cent. alcohol to enable removal from the containing flask to proceed easily, and it is then added gradually, with vigorous stirring to a large excess of absolute alcohol. The new substance is precipitated and sinks rapidly to the bottom of the vessel. It is allowed to stand in a desiccator, and the supernatant alcohol poured off. The precipitate is then dissolved in the smallest quantity of 40 per cent. alcohol, filtered if necessary, and the precipitation repeated.

The precipitate is washed on to a filter paper with absolute alcohol, and is gradually washed down into the cone of the filter paper, care being taken that it is just covered with the alcohol. The precipitate is then thrown into chloroform, and refiltered. It is removed from the filter paper, placed in the form of a thin layer, on a large clock glass and the chloroform removed by standing the clock glass in a vacuum desiccator. The drying may then be completed in a steam oven maintained at a low temperature.

The resultant product, when powdered, is colourless in the case of the green leaf, and slightly coloured when obtained from made tea.

Properties:—The substance rapidly absorbs moisture; it is very soluble in cold water giving an intensely coloured solution; it is soluble in dilute alcohol, and insoluble in absolute alcohol, chloroform, ether, benzene, ethyl acetate and acetone. It gives no precipitate with gelatine; it, however, contains theotannin, this point being evidenced by the blue

precipitate it gives with ferric chloride, and the amorphous precipitate given readily with formaldehyde in acid solution. It contains nitrogen, but only minute traces, if any, of caffeine. It gives a yellow precipitate with lead acetate; it is also precipitated by mineral acids and by the addition of salt.

The foregoing properties agree very closely with those given by Nanninga to a substance which he termed glucoside. Nanninga's substance, however, did not give a positive reaction for nitrogen; further, this investigator failed to recognise the presence of theotannin as an ingredient of the compound, though he admits that it was a persistent impurity in his product.

Analytical Data:—The preparations of this substance from various sources were analysed with respect to ash and theotannin. The latter was determined by the formaldehyde method. The following table gives the results obtained:—

Sample	Origin	Ash	Theo- tannin	Account- ed for	Un- account- ed for.
1	Green leaf	17.70%	36.2%	53.90	46.10
2	Medium Elevn. Made tea	18.04%	40.5%	58.54	41.46
3	High Elevn. " "	22.95%	37.9%	60.85	39.15
4	" " " "	21.80%	39.2%	61.00	39.00
5	Low " " "	33.10%	40.6%	73.70	26.30

It will be noted from the foregoing table that the theotannin content remains very consistent in the samples. It is only when the theotannin is considered as a percentage of the organic total that differences are shown, these percentages ranging in the made tea samples from approximately 50 per cent. to 60 per cent.

Nitrogen was found qualitatively in all samples, and was determined quantitatively in the last two samples by means of the Kjeldahl method. The results obtained were:—

Sample 4. 2.18 per cent.

Sample 5. 1.41 per cent.

This nitrogen was not derived from caffeine, as an extraction of the substances for caffeine demonstrated negligible quantities.

It will be noticed that the nitrogen figures given are closely proportional to the percentage of the substance unaccounted for by ash and theotannin. It would appear therefore that it is necessary, in order to arrive at the identity of the substance, or substances, making up this unaccountable portion, that the nitrogen be correlated with those nitrogenous substances taken out by a hot water extraction, apart from caffeine.

In attempting to do this one is immediately confronted with the difficulty that we do not possess any definite information concerning the nitrogenous substances in tea, apart from caffeine. If the "unaccounted for" fraction be considered as completely made up by protein, then the protein would contain only 5.6 per cent. nitrogen. The crudest sample of protein prepared from tea gives over 8 per cent. nitrogen, and it is therefore probable, that the fraction is not entirely protein.

The possibility of the presence of pectin must not be overlooked in this direction, but until an adequate knowledge concerning the nitrogenous substances in tea becomes available, it is felt that the identity of the "unaccounted fraction" must remain unsolved.

Ash Constituents:—The high content of ash in all the samples is noteworthy. The ash consists mainly of phosphoric acid, magnesium, sulphate, manganese and potassium. The determination of the first three constituents in one of the samples gave the following:—Phosphoric acid as P_2O_5 : 7.2 per cent; Magnesium as $MgCO_3$: 22.35 per cent.; Sulphate as SO_3 : 13.5 per cent. Potassium represents the main part of the remainder.

Practical importance:—

(a) **Colour:**—There is no doubt but that this new substance is a contributor to the colour of a made tea infusion. The main substance in this connection is caffeine oxytheotannate, chiefly on account of the large percentage of this compound in tea. Weight for weight, however, in a given volume of water, the intensity of colour given by the new substance is considerably greater than that given by caffeine oxytheotannate. The capacity for contributing colour is most probably conferred upon it by the presence of theotannin.

The ease with which the substance goes into solution even in cold water ensures that under the conditions of infusion it would be completely extracted from the tea within the 5 minutes allowed for infusion. The colour produced in a cold infusion of tea is due to this substance, rather than to caffeine oxytheotannate.

(b) **Metals in an infusion:**—The dietetic significance of metals in a made tea infusion does not appear to have received special attention. In this connection two may be mentioned, *viz.*, phosphoric acid and manganese. The former is well known as an ingredient of importance in human physiology; manganese in food-materials as a corrective for goitre received consideration, and it must be remarked that tea contains considerably higher amounts of manganese than most of the commoner foodstuffs and beverages.

Now, if it is considered as to how these metals gain access to an infusion of tea, the first point of note is that caffeine oxytheotannate does not in any way contribute in this direction. It is practically ashless. Apart from the metals taken into solution in the form of simple organic salts, the new substance must be considered of importance. As shown it contains a high percentage of ash, ranging from 18 to 33 per cent. and its ready solubility in water entails that the associated ash constituents would be found completely present in the infusion.

Furthermore, if metal exchange occurs during the processes involved in tea manufacture, the significance of the substance becomes enlarged. Since it has been suggested that it is metal exchange which is responsible for certain changes occurring in the withering of leaf, it is felt that a thorough investigation of this substance would be fully justified.

(c) **Identity with tea enzymes:**—The importance of enzymes in the processes in tea manufacture requires no amplification. Mann claimed to have isolated the enzyme from green leaf by macerating the leaf with Hide Powder, extracting with water and precipitating with alcohol. Bernard and Welter, in addition to Deuss, employed expressed leaf sap, which they precipitated with 90 per cent. alcohol. The precipitate obtained was in all cases purified by re-solution in water, and re-precipitation.

In effect, these workers were obviously dealing with a preparation consisting mainly of pectic substances. It must also have contained the new substance at present under discussion. Since the investigators named above found that their preparations exhibited enzyme activity, and since pectic substances do not themselves possess enzyme powers, it may be tentatively assumed with some justification that it was the new substance which was responsible for the enzyme activity displayed by the preparations.

Furthermore, a study of the ash constituents indicates a relationship between this new substance and the enzyme preparations of the authors cited. Thus, Bernard and Welter, and Deuss identified in the ash of their preparations just those inorganic elements which have been shown to be present in the ash of the new substance, *viz.*, magnesium, potassium, manganese, phosphorus, and sulphate. They also found, that their product always contained tannin, which they could not remove by treatment with alcohol, in which, it might be added, theotannin is very soluble.

It is proposed determining the accuracy of the conclusion regarding the identity of the new substance with the enzyme of tea, during the coming year.

It is of interest to observe here that in the publication on Theotannin, it was suggested that one of the changes occurring during withering was the formation of a synthetic peroxidase system consisting of a metallic hydrosol, *e.g.*, of Manganese and a hydrophilic colloid, *e.g.*, theotannin. It will be noted that the presence of at least these two necessities for an enzyme phase are present in the new substance. A study of the substance may therefore throw considerable light upon the mechanism of enzyme formation during the withering of leaf.

3. THE PECTIC SUBSTANCES OF TEA.

It is in connection with the pectic substances of tea that most of the chemical data accumulated is connected. As already stated, it is impossible to include it here, and as their practical importance has not been definitely established, it is proposed giving here only a very brief account of the analytical figures obtained.

The water soluble pectins contain three definite fractions:—Ash, true pectin, and an unknown substance, present to the extent of some 13 to 15 per cent. of the sample.

The analysis of the samples with respect to total ash, and the ingredients of the ash yielded the following:—

Sample	Ash %	Calcium as CaCO ₃	Magne- sium as MgCO ₃	Potassium as K ₂ CO ₃	Manga- nese as Mn ₂ O ₄	Total
1	20.30	—	—	—	—	—
2	21.00	19.2	19.2	54.5	—	92.9
3	20.33	17.8	27.0	49.0	—	93.8
4	23.42	6.2	38.3	49.8	—	94.3
5	21.46	17.8	26.0	49.0	—	92.8
6	21.09	18.2	29.6	44.5	—	92.3
7	11.60	17.7	65.4	—	8.90	92.0

In the case of Sample 7, the leaf was first of all exhaustively extracted with alcohol, before the pectin was removed by the water treatment. The drop in total ash is noteworthy.

The true pectin content of the samples was determined by the method of Carré and Haynes. The pectin is determined as the Calcium Pectate, which may then be converted into the tetramethylpectic acid (pectin) by the employment of the factor 0.9813. The results are tabulated as follows, the ash being again included in order to indicate the total of the fractions of the samples accounted for:—

Sample	Ash %	Pectin	Total	Remainder.
1	20.30	62.40	82.70	17.30
2	21.00	61.80	82.80	17.20
3	20.33	65.10	85.43	14.57
4	23.42	62.80	86.22	13.78
5	21.46	63.30	84.76	15.24
6	21.09	63.90	84.99	15.01
7	11.60	71.60	83.20	16.80

It has been determined by the method of Nanji and Norman that the pectin present in the samples is in the form of the fully methylated ester, *viz.*, the tetramethylpectic acid, thus justifying the employment of the 0.9813 factor employed. The ease with which de-esterification takes place under enzyme action suggests that during withering and oxygenation, methyl alcohol is eliminated. The role of the methyl alcohol has still to be determined but bearing in mind the extreme solubility of caffeine oxytheotannate in methyl alcohol, it is possible that this de-esterification of the pectin may be of some significance.

The unknown portion of the sample, ranging from 13.78 to 17.3 per cent. is of interest. As we are unaware of the manner in which the ash is combined in the sample, it cannot be assumed that the percentages of the unknown fraction shown in the table are true representations of the extent to which it is present in the pectin samples. It can, however, be stated that it is present to the same extent in each sample within reasonable limits.

In considering the problem of the identity of this fraction we find ourselves once again confronted by the obstacle presented by an inadequate knowledge of the nitrogenous substances, other than caffeine, in tea. Thus, all the samples gave a positive test for nitrogen; it is improbable that the true pectin contributes this nitrogen, as most investigators of pectic substances are agreed that the pure substance contains no nitrogen; the ash may be omitted from consideration in this connection. The conclusion is that the unknown fraction contains the nitrogen. The similarity of the problem of the identification of the unknown fraction in the pectin samples, to that of the unknown fraction in the new theotannin derivative discussed in foregoing paragraphs will be clear.

It would appear that the essential difference between the pectin samples, and the new substance, is that in the pectin samples, tetramethylpectic acid takes the place of the theotannin in the new substance. Both the pectin samples and those of the new theotannin derivative contain a high ash content and an unknown nitrogenous ingredient.

It is known that there are certain pectic substances insoluble in water, which may be extracted by dilute oxalic acid and dilute ammonium oxalate. These observations have been made the basis of a method of determining quantitatively the distribution of pectic substances in nature. The method was applied to the two leaves and a bud employed in manufacture, the following results being obtained:—

Solvent.	Green Leaf			Made tea (B. O. P.)	
	Expt. 1	Expt. 2	Expt. 3	Expt. 4	Expt. 5
Water	1.57	1.73	1.66	1.89	1.71
Dil Oxalic acid.	3.15	3.38	3.23	3.67	3.48
Dil Ammon. oxalate	1.97	1.22	1.64	0.52	1.20
Total	6.69	6.33	6.53	6.08	6.39

The figures in the above table are the so-termed "Calcium Pectate Numbers" and represent the weights of the pectic substances extracted from 100 grams dry material by the appropriate solvents.

The results show very good agreement among themselves, and it was admittedly surprising to find the figures obtained for the Made Tea (B. O. P. grade) agreeing so well with those obtained for green leaf. The figures unfortunately do not represent a fair comparison between green leaf flush and made tea as a whole, as the B. O. P. grade was strictly according to grade, and hence mainly composed of the finer members of the green leaf flush.

It was necessary to determine if the various members of the flush exhibited similar distributions of the pectic substance. The following table gives the results for the bud, first leaf, second leaf and stalk comprising the flush:—

Solvent.	Bud	1st Leaf	2nd Leaf	Stalk
Water	2.77	3.12	2.15	2.07
Dil. Oxalic acid	1.27	0.87	3.10	4.93
Dil. Ammon. Oxalate	0.27	0.26	0.40	0.90
Total	4.31	4.25	5.65	7.90

From the foregoing table it will be noted that the bud and first leaf are the richest in water soluble pectin. The first leaf contains the highest amount of this pectin, and it must be pointed out that usually the first leaf contains the highest percentage of theotannin. The total pectic substances in the bud and first leaf are about equivalent, but it will be noted that the second leaf and stalk show an increase in total. Although this is partially due to the increase in the ammonium oxalate extracted pectic substances, the most outstanding increase is in the oxalic

acid extract. If we accept the definition of the pectic substances according to their extractability as being, "free pectin,—soluble in water," and, "combined pectin,—soluble in oxalic acid," it may be concluded that one of the activities proceeding during the growth of the flush is the gradual absorption of metals by the free pectin contained in the younger members of the flush. It is well known that the bud and first leaf produce the best types of made tea, and in addition to the higher content of theotannin, this may be ascribed to the presence of a greater percentage of free pectin.

Practical Significance:—Until we have ascertained the forms in which the pectic substances are present in made tea, the changes undergone by pectin during manufacture cannot be stated with certainty. It is just necessary to outline the possibilities of practical importance.

(a) The ease with which de-esterification takes place suggests that this occurs during withering and oxygenation. Accepting the B. O. P. grade as being composed mainly of the first two members of the flush, a drop in free pectin content may be considered to take place during manufacture.

(b) Changes in the pectins in fruits have been shown to take place during the ripening process, resulting in the production of ester-like compounds giving to ripe fruits their characteristic smell. It is easily conceivable that a similar action takes place during withering resulting in the "apple" smell of satisfactorily withered leaf.

(c) Its presence, in conjunction with caffeine oxytheotannate in the creaming down group of substances has been established. Since pectins are the substances added to jams in order to ensure jellification, the importance of tea pectins in relation to the "body" of tea may be suggested.

(d) It is responsible for the introduction of metals into an infusion of tea, and thus contributes to the dietetic value of tea.

(e) If the pectin samples are boiled with water, or heated dry, they emit a true "malt" smell. Since pectins are composed of carbohydrate residues, the formation of the well known "malt" smell, stated to be due to caramelisation, during the firing of tea, may be partially ascribed to the pectins of tea.

Conclusion:—

One conclusion of importance derived from the foregoing scientific investigations is that until we have an adequate knowledge of the nitrogenous substances in tea, this knowledge will always serve as a limiting factor towards further progress. The significance of these nitrogenous substances has been realised from the commencement of investigations of tea, and it is felt that it is only the intricacy of the subject which has prevented information of some kind being forthcoming.

As indicated, both in the case of pectins and the new theotannin substance, a satisfactory identification of the complete samples could not be made as a result of no information being available which could explain the nitrogenous ingredient.

As a result of the foregoing researches upon theotannin, its derivatives, and the pectic substances, it is felt that we possess a thorough knowledge of those substances not possessing nitrogen in their constitution. By the elimination of these, it is hoped during the coming year to be able to come to some conclusions concerning the main nitrogenous substances, other than caffeine, in tea.

W. S. SHAW.

REPORT ON THE CONTROL OF WITHER

BY THE

ASSISTANT TEA SCIENTIFIC OFFICER

Since the publication of the book on Theotannin there has been an increasing demand for further information concerning the suggested scheme for basing the degree of wither on the concentration of theotannin in the withered leaf. A number of factories are conducting experimental work with a view to investigating the possibilities of this idea.

It was stated in the above mentioned publication that it seemed probable, from well established chemical principles, that one of the most important factors in successful manufacture is the production of a suitable ratio between the water remaining in the withered leaf and the theotannin content of this leaf, that is, the concentration of theotannin in the withered leaf. Furthermore it was shown that by finding the percentage solid matter, or dry weight, of the original leaf, and the percentage wither undergone, it is easily possible to calculate what this concentration of theotannin actually is. It was suggested that by recording the concentrations which are reached in normal practice, and comparing these with the characteristics of the tea produced, it should be possible to establish some particular concentration as being most suitable for individual factories. A rough outline was given of the very simple apparatus required and the procedure necessary, and also of the calculations involved.

It has since been found that the calculation can be reduced to a minimum by the use of a table which has been drawn up, and as a result of experience more helpful details of the technique necessary can now be given.

For the benefit of all who may be interested, the new table will be reproduced in this report and the more important details of the suggested procedure reiterated.

Under present conditions, the introduction of expensive apparatus is not justifiable, especially as sufficiently good results may be obtained with apparatus which is available on most estates. With a little ingenuity, the monetary outlay can be reduced to negligible proportions.

Theory underlying the suggested investigations:—The most important constituent of green tea leaf is theotannin. At the conclusion of withering all the theotannin, or all that is of any value in the final product, is in solution in the water remaining in the withered leaf.

The theotannin in this solution undergoes certain chemical actions during fermentation. The course and extent of these actions will be very largely controlled, not so much by the amount of theotannin in this solution, as by the strength of this solution, that is, the ratio between the amount of theotannin present and the amount of water remaining. It is therefore desirable to determine the range of concentrations (strengths)

which is met with in practice, and, if such an optimum concentration can be shown to exist, a very strong case can be put forward for the adjustment of the degree of wither so that this particular concentration will result.

Up to the present the only attempt to standardise the degree of wither on a scientific basis has been due to Deuss in Java who strongly recommended that withering should result in a leaf with a standard moisture content. This is a great improvement on the system of working to the same percentage wither the whole year round and has been adopted over a large acreage in South India and is being strongly recommended by the Tea Research Institute of Ceylon.

On theoretical grounds, however, it is better to work to an optimum concentration of theotannin when this optimum has been discovered. The truth of this is confirmed by the statement made by Evans of the Ceylon Tea Research Institute at the conference held at St. Coombs in January 1933, as follows:—"Fermentation—this will be irregular because the sap concentration will vary according to the moisture present in the leaf, since the speed of chemical reactions depends to a certain extent on the concentration of the reactants. There can, therefore, be no uniformity of the fermentation until evenly withered leaf is obtained. Dr. Shaw of the Scientific Department in South India goes even further and stipulates that the leaf should be withered so as to give the same concentration of tannin in the sap each time. This is based on sound reasoning but if, as a first approximation, we can work to a wither giving constant moisture it will be a tremendous step forward."

Fortunately it is just as easy to base withering on the concentration of theotannin in the sap as on a constant moisture content in the withered leaf since it has been found possible to construct a table connecting the original percentage dry weight, and the percentage wither reached, with the concentration obtained with withered leaf, so that the same data is all that is necessary for either purpose.

Application of Theory to Practice:—There are three main causes which contribute to make withering a haphazard process. These are:—

- (1) Lack of facilities for producing an adequate wither in a convenient time.
- (2) The variation in moisture content of the leaf when it arrives at the factory.
- (3) Lack of knowledge of when the wither has been carried sufficiently far.

The most difficult factor is undoubtedly the first but this has been largely overcome by the development of artificial withering methods. The expense of installing the required plant, the acquiring of a knowledge of its application to the best advantage, and adequate supervision are other not insuperable difficulties.

It is surprising how little has been done towards eliminating the second difficulty cited above. It is patent that there is a difference in the moisture content of different types of leaf, independent of the enormous possible variation due to surface moisture. Yet, apart from applying very inaccurate corrections for surface moisture, the same degree of wither is often aimed at the whole year round. It is true that there

are said to be a number of tests by which a wither may be judged, but some of these are most unsatisfactory and the remainder allow a very large margin of error. As it is very nearly impossible to find exactly how much surface moisture there is on a sample of leaf it is obviously desirable to eliminate the necessity for taking the surface moisture into especial account. It should be remembered that the distinction between surface moisture and internal moisture is not important. The important fact is the amount of water remaining at the end of the wither. It is better to be able to say that the withered leaf contains exactly 60 per cent. of water, than to say that a quantity of leaf which probably would have weighed between 90 and 110 pounds if it had been dry has been withered until it weighs 65 pounds. Unfortunately it is very difficult to find out immediately how much water remains in withered leaf, and it is not possible to hold up the wither until this has been done. The only practical method of reaching the desired result is to find out how much water was present in the leaf originally and then calculate how much water is to be removed during the wither. It is important to realise that the whole of the water must be taken into account in the first place and no guesswork correction for surface moisture should be applied. By taking a sample of the leaf as it arrives at the factory, be it very wet, slightly wet, or quite dry, and by determining the ultimate dry weight of this sample, a reliable guide is obtained for deciding what weight of water has to be removed from the bulk of the leaf. It is quite simple to do this and an outline of the procedure necessary will be given.

When it is possible to standardise the product of wither in this way then it is only a matter of observation and experience to discover the type of wither which is most suited to the production of the type of tea required. Thus the third main source of error may be removed.

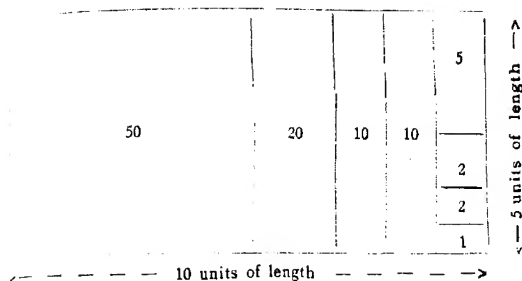
We have seen therefore that for standardised withering there are three points to receive attention:—

- (1) The estimation of the percentage dry weight of the leaf as it enters the factory.
- (2) The estimation of the percentage wither, that is, the weight to which 100 pounds of leaf is reduced during withering.
- (3) The determination from the tables, of the concentration of theotannin, or of dry weight, in the withered leaf, corresponding to the percentage wither determined as in (2).

Each of these will be discussed in turn and methods by which they may be satisfactorily carried out will be indicated.

(1) **Percentage Dry Weight:**—Expensive and complicated apparatus is not required for this purpose, although such may be used if preferred. A sufficient degree of accuracy may be obtained by the use of quite simple and readily available apparatus. All that is essential is a very rough balance, a few tins in which to weigh leaf, a home made set of weights, and a place in which to dry the leaf until it no longer loses weight.

A letter balance has been used for this purpose with good results. Care should be taken to see that the balance is true before any weights are added. The necessary weights can be made by cutting up a sheet of smooth lead foil as used for tea packets. The accompanying diagram demonstrates a useful and suitable method of doing this.



If a suitable letter balance is not available the cost of a new one is less than ten rupees. A chemical balance of the roughest type would be a little more convenient in use. Such a balance, with weights, would cost a little under two pounds sterling exclusive of customs and carriage.

The leaf containers should be large enough to hold, without undue crushing, a weight of wet leaf, equal to 200 times the smallest weight which affects the balance. For a letter balance this amounts to about an ounce and a half, and tins with a capacity of about a pint are required.

For drying the leaf there is no need, at the present experimental stage, to use any other source of heat than a firing machine. The leaf may be dried by being placed in the hottest parts of the pre-heating chamber, or in the case of some machines, in the duct between the furnace and the drying chambers. Failing any such possibilities as these, the tins may be placed in the space below the trays but in this case special precautions are necessary to prevent falling tea being blown into the containers.

It is therefore convenient, first, to get the balance which will be used, secondly to contrive the necessary weights, thirdly to collect a few containers. To avoid weighing the containers each time they are used it is convenient to adjust the weights of these until all are equal, and to have a standard weight to counterbalance any of these. The leaf will dry quicker if these containers are provided with a number of perforations in the sides.

The procedure is then as follows:—Samples of leaf are taken as the leaf arrives at the factory and a weight equal to 100 units is weighed into a counterpoised container. The container is then taken to the selected place and the leaf in it is allowed to dry completely. This will take about 4 hours at a temperature of about 180°F or over. The container and dry leaf are again weighed. The weights necessary to counterpoise the leaf gives directly the percentage dry weight of the leaf. Until ample experience has been obtained of the time necessary to dry the leaf it is advisable to check the result obtained at the first weighing by replacing the sample for another half hour or so in order that any change in weight may be detected. The samples should be weighed before they have time to cool. Where small weights of leaf are being

used it may be advisable to bring the counterpoise of the container to about an equal temperature, as otherwise the balance may be slightly affected by convection currents of air. It should be possible to get the percentage dry weight accurately to the nearest half per cent. Greater accuracy is unnecessary and hence more refined apparatus and technique are probably a waste of money and of time.

(2) **Percentage Wither:**—The figures quoted in factory records as the daily percentage wither are usually most untrustworthy. This is largely due to the arbitrary deductions made for surface moisture and the very rough measurement of the weight of withered leaf. A common practice is to spread 100 pounds or so of leaf on a particular bank of tats, allowing a variable amount of extra leaf to compensate for surface moisture; at the conclusion of the wither this leaf is weighed and the result is taken to be the percentage wither for the day. A figure is thereby obtained which can be entered in the factory records. This figure is probably rarely more than ten per cent. out.

It is seldom that the percentage wither is calculated until after the leaf has been taken to the rolling room. Such figures only indicate an incorrect degree of wither after it is too late to remedy it. Since the true weight of the original leaf is frequently only known approximately, as a result of surface moisture, and since different leaf requires a different degree of wither, such determinations are of little, if any, practical use.

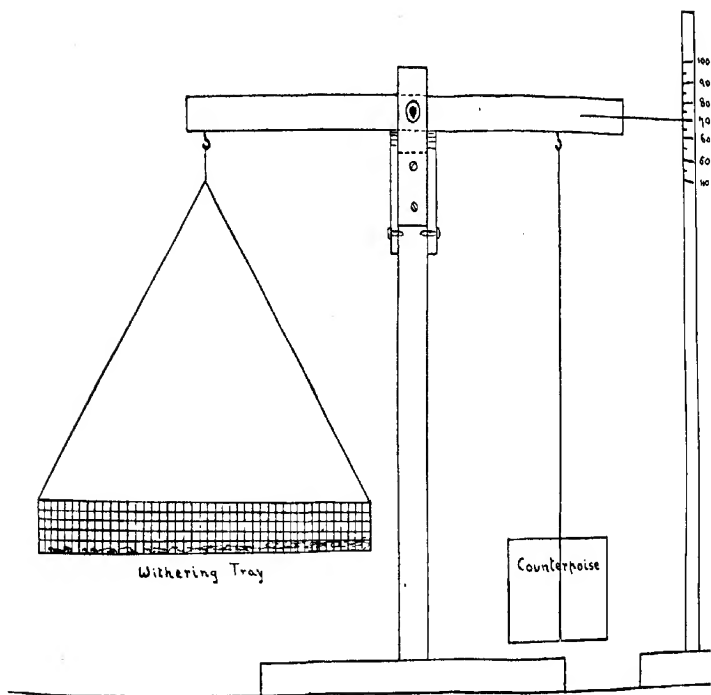
A method of checking the percentage wither is required by which the progress of wither can be easily estimated from time to time, so that it may ultimately be brought to the required degree, at a time when it is convenient to continue the manufacturing process. Further, the degree of wither should be correlated with the amount of withering required by the leaf, that is, it must be made to vary according to the percentage dry weight of the original leaf. The percentage dry weight can be found in a few hours and the knowledge thereby gained can be applied as a guide to the percentage wither. The percentage wither must be calculated on the original gross weight of the leaf and not on the weight of leaf remaining after a guesswork correction for surface moisture has been applied.

An apparatus has been designed, tested, and found to be capable of giving the required information. This consists of a balance on which portable trays of leaf can be weighed. These trays can be placed on the tats at suitable places and subsequently re-weighed as often as required. The balance is arranged so that instead of having to add or subtract weights a moving pointer indicates the degree of wither reached.

The balance consists of a beam, about 4 feet in length, which may be made of any hard wood or piece of angle iron. This balances on a knife edge made from an iron or steel bolt filed down to the necessary sharp edge. From one end of the beam is suspended the withering tray, while from the other is suspended a counterpoise for the tray. Small variations in the weight of leaf on the tray cause a tilt on the beam which is indicated by a pointer moving over a pre-arranged scale. Such a balance is fairly easily constructed in any workshop and the design may be altered to suit individual requirements. A diagram of such a balance is appended as a guide to the general outline to be followed.

DIAGRAMMATIC REPRESENTATION OF ONE FORM OF

WITHER REGISTRATION BALANCE.



The trays are best constructed of wire netting although old roll 'breaker mesh can be utilised if more convenient. These trays should be capable of carrying 8 ozs. of leaf at a thickness of spread equal to the thinnest spread normally employed in the factory. The shape of the trays should permit them to be carried to and fro along the alleyways of the lofts and of being placed in position on the tats.

The scale registering the degree of wither can be set up by experimenting with a few ounce and half ounce weights.

With a tray suspended from the beam, the weight or position of the counterpoise is altered so that when a five or six ounce weight is placed on the tray the beam is approximately level. When an eight ounce weight is substituted the pointer should take up a well-defined position on the scale which can thereupon be labelled 100 per cent. This will correspond to the position of the pointer when the tray is spread with un-withered leaf. By substituting 7, 6, 5, 4 and 3 ounce weights different positions of the pointer are obtained which can be marked on the scale as 87½ per cent., 75 per cent., 67½ per cent., 50 per cent. and 37½ per cent., respectively. These correspond to the positions of the pointer after the weight of the leaf has been reduced by withering to the percentage indicated. The scale can then be further sub-divided.

In outline it will be seen that the apparatus is simple in conception. There are various difficulties which may be met with in practice which may be discouraging if they are not overcome. For instance, if the pointer does not give a constant deflection for a constant weight the cause may be either that the knife edge is not true, that the tray is not sufficiently freely suspended, or that draughts are affecting the balance. If the balance is too sensitive the swing can be steadied by adding weights to the beam on both sides. If it is not sufficiently sensitive a sharper knife edge is probably required and a longer pointer may be useful. To avoid undue wear on the knife edge, supports can be arranged to take the weight off this when it is not actually in use.

Several trays should be available, all of standard size and of exactly the same weight. Half inch wire netting is suitable for this purpose. They should have a wooden frame or better still a galvanised wire frame for strengthening purposes. The sides should be of a depth such that the tray will pass readily between two layers of tats and at the same time prevent spreading coolies from throwing extra leaf on to the trays after they have been placed in position. When in use leaf should be spread right up to the trays. To compensate for variations in average thickness of spreading in the loft, leaf should only be spread on a limited portion of the tray when thicker spreading is in vogue. By marking the tray into various lengths, corresponding to the various degrees of spreading, inconsistencies can be avoided.

Having established the apparatus the procedure is again fairly simple. A tray is suspended from the balance and a sample of leaf is added to it until the 100 per cent. wither mark is indicated by the pointer. The tray is then removed to the loft and placed in the middle of the space to be occupied by the leaf represented. At any convenient subsequent time the tray can be taken back to the balance and the degree of wither, at that time, read off the scale.

(3) Determination of corresponding Concentration of Theotannin and Percentage Dry Weight in withered leaf:—When the original percentage dry weight of the leaf is known and the percentage wither is also known, this information may be used to characterise the wither either in terms of the concentration of theotannin in the withered leaf or as the percentage dry weight of the withered leaf. For facility of calculations two tables are included here from which either the concentration of theotannin in the withered leaf or the percentage dry weight of the withered leaf may be read off easily. It will also be seen that if it is desired to work to any given concentration of theotannin, or to a constant percentage dry weight of the original leaf, the wither required by this leaf to give the desired result can be obtained from the table.

(Note.—See Tables on pages 149 and 150.)

Recording Results:—It must be emphasised that at present no optimum values for the concentration of theotannin in withered leaf, or percentage dry weight of the withered leaf, have been established. Indeed it is probable that there is a variation in this matter from one factory to another since the nature of the leaf, method of rolling, etc., are different. Hence all that can be done at present is to record the results and subsequently choose, as a standard, the value that gives the best results.

As an illustration of the way in which results are best recorded a sample is herewith reproduced of three forms, with examples of the way in which they may be filled in, and a few notes on the entries in each column. In practice all these entries can be made on one sheet, if this is more convenient.

It has been demonstrated practically that such forms can be kept without unduly harassing the factory staff.

(Note.—See Tables on pages 151 to 154.)

		Percentage Dry Weight of Green Leaf													
		17	18	19	20	21	22	23	24	25	26	27	28	29	
Percentage Dry Weight in Withered Leaf	32	53	56	60	63	66	69	72	75	78	81	84	87	91	
	34	50	53	56	59	62	65	68	71	74	76	79	82	85	
	36	47	50	53	56	58	61	64	67	69	72	75	78	81	
	38	45	47	50	53	55	58	61	63	66	68	71	74	76	
	40	42	45	48	50	53	55	58	60	63	65	68	73	72	
	42	40	43	45	48	50	52	55	57	60	62	64	67	69	
	44	39	41	43	46	48	50	52	55	57	59	61	64	66	
	46	37	39	41	43	46	48	50	52	54	57	59	61	63	
	48	35	37	40	42	44	46	48	50	52	54	56	58	60	
	50	34	36	38	40	42	44	46	48	50	52	54	56	58	
	52	33	35	37	38	40	42	44	46	48	50	52	54	56	
	54	32	33	35	37	39	41	43	44	46	48	50	52	54	
56	30	32	34	36	38	39	41	43	45	46	48	50	52		
		Percentage Wither.													

FORM I.

Green Leaf Dry Weight Determination.

1	2	3	4	5	6	
Date.	Sample	Field No.	Time started first weighing	Time finished last weighing	Aver. Temp of firing machine.	Percentage Dry Weight
1-6-1933	1	5	11-30 a.m.	4-0 p.m.	200°	21
	2	8	11-35 a.m.	4-0 p.m.		21
	3	5	5-30 p.m.	11-0 a.m.		22
	4	8	5-35 p.m.	11-0 a.m.		22
2-6-1933	1	15	11-0 a.m.	4-0 p.m.	200°	20
	2	13	12-0 a.m.	4-0 p.m.		20.5
	3	15	4-30 p.m.	11-0 a.m.		23
	4	13	5-30 p.m.	11-0 a.m.		22.5

The number of samples depends on convenience but if possible should represent any possible variation in leaf.

Notes on whether the leaf is from a tipping field might also be included in this column.

These should be done as soon as possible, particularly in warm weather.

Here the drying of the evening sample leaf was finished off the next morning.

This is relatively unimportant but a note might be made of lower drying temperatures due to the drying being finished when only pre-packing firing is being done.

If forms I, II and III are combined this column may be omitted, and replaced by columns 6a, 6b, 6c in Form III

FORM
Determination of

Date.	Field No.	Sample.	Average thickness of spread.	Tray position.	Wither started
1-6-33.	5	1 } 2 }	1 : 12 {	A8 } B7 }	11.45 a.m.
	8	3 } 4 }	1 : 15 {	C7 } D9 }	6 p.m.
2-6-33.	8	1 } 2 }	1 : 10 {	A8 } B7 }	11.15 a.m. 12 noon.
	13	3 } 4 }	1 : 12 {	C7 } D8 }	5 p.m. 5.30 p.m.
<p>These columns may be omitted if forms I, II and III are combined.</p> <p>The number of samples should agree with the green leaf dry weight samples. The degree of wither required for each sample can then be judged from the percentage dry weight.</p> <p>The spreading of leaf on the balance trays should be approximately equivalent to the spreading in the lofts.</p> <p>This refers to the position of the trays in the lofts according to a convenient system of numbering the lofts and the tats in them.</p> <p>This is the time at which spreading has been half completed.</p>					

II.

Percentage Wither.

Interim tests		Final Test.		Wither on all leaf.
Time	Wither %	Time.	Wither %	
6 p.m.	75	8 a.m.	54	55
7 a.m.	55	8 a.m.	52	50
7 a.m.	70	3-30 p.m.	52	50
7 a.m.	62	3-0 p.m.	48	50
7 a.m.	50	8 a.m.	48	50
7 a.m.	52	9 a.m.	47	45
7 a.m.	65	3 p.m.	55	54
7 a.m.	65	4 p.m.	55	54

These interim tests are not of great importance except as a check on the rate of wither, and as a help towards reaching ultimately a uniform wither for the varying types of leaf e.g. leaf from different fields.

This should be the time of the last reading—just before the leaf is taken off the rats.

These refer to the withers registered on the balance. If the trays are correctly placed they will agree well with the true average.

This is the true average wither estimated by weighing the leaf taken to the rollers and expressing this as a percentage of the gross factory weight. This need not be repeated every day.

Type of Results required:—It is obvious that, in an investigation of this kind it is not always possible to obtain a perfect record. On the other hand the records lose their significance if the figures quoted are not reliable. For this reason it is strongly advised that, when the accuracy of the figures obtained is vitiated by some unforeseen circumstance, they should be omitted. If it is impossible to obtain some of the figures on certain days owing to pressure of other work, a note to this effect might be made.

Duration of Wither:—It is suggested that a record of this might be included amongst the other data, but this is only for the purpose of taking into consideration the probable effects of undue variation in this factor. Although there has recently been a certain amount of controversy concerning the effect of especially rapid withers, this aspect of withering is not involved in the control of wither by the procedure outlined in this Report.

Significance of the proposed Standardisation of Wither:—The standardisation of wither which has just been detailed deals with the production of a withered leaf, in which the theotannin concentration is such that it will react in a standard fashion to the subsequent processes.

There is one other factor which has not been introduced into the scheme, *viz.*, the variation in the chemical constitution, or quality, of the theotannin due to climatic conditions. Theotannin being a physiologic product would be expected to vary according to the physiologic activities of the bushes, which in turn would be expected to change according to the growth under hot weather, and monsoon, growing conditions.

The only method of dealing with this variation at present is by establishing one standard of wither for one season of the year, and another standard for another season. The collection of the relevant figures already recommended, throughout the year, will contribute considerably to the determination of the most successful method of controlling theotannin to obtain the desired characteristics in the types of tea produced under various climatic conditions.

Respiration Losses:—In the tables concerning the concentration of theotannin, and percentage dry weight in withered leaf, no correction has been made for loss in dry weight owing to the respiration of the leaf during withering. This does not indeed affect the calculation of concentration of theotannin to any appreciable extent but it does slightly affect the percentage dry weight of the withered leaf.

Detailed information on the extent of this loss is lacking although worthy of attention. This loss is greatest where the wither is prolonged and is probably perceptible in practice. Until further work on the subject has been done no corrections for this effect can be made. In any case where the time taken over the wither is approximately constant the loss under this heading may reasonably be assumed to be constant, for all practical purposes, and therefore the effect on the optimum percentage ultimately chosen is unimportant.

Other uses of Percentage Dry Weight Apparatus:—When this apparatus has been arranged for estimating the percentage dry weight of green leaf it may also be used for a second purpose, the estimation of moisture in made tea. This is a subject on which the Ceylon Research Institute has had much to communicate. It has been known for many years that it is advisable to pack tea when it has a moisture content of between 5 per cent. and 6 per cent. If there is a moisture content greater than this the tea has a greater tendency to deteriorate, whereas with a lesser moisture content the tea does not mature satis-

factorily. The advantages of keeping in touch with the moisture content of made tea are as follows:—

1. Too thorough drying in the firing machine may be avoided, thus saving fuel and increasing the output.
2. The advisability, or otherwise, of final firing before packing can be estimated.
3. Tea can be packed at its optimum moisture content.
4. Packing tea which contains 1-2 per cent. of moisture less than the optimum value represents a loss of 1-2 per cent. in the weight of tea packed. In the course of a year this would amount to several thousand pounds of tea on most estates. If a saving equal to this is possible by the use of the above apparatus, there should be no reluctance to devote a little time and trouble to this point.

In order to use the apparatus for determining the moisture content of tea it is only necessary to use more suitable containers for the samples. Counterpoised sample tins may be used. The tea dries best if it is in a thin layer. Lids may be placed on the tins and they may thus be allowed to cool before being weighed.

It is not considered necessary to use expensive and complicated apparatus for this purpose as a high degree of accuracy is not required. Care should be taken that the tea when finally weighed is completely dry. The sample should be given at least 4 hours drying at a temperature of not less than 180°F. Tea so dried may still contain a very small percentage of moisture, but not enough to vitiate the result from a practical point of view.

Other uses of the Wither Registration Balance:—The two most satisfactory features of this balance are that the trays can be placed at any point desired in the loft and that the degree of wither can be estimated at any desired moment.

Hence the balance may be used for testing and regulating—

- (a) The efficiency of withering in various parts of the lofts, and
- (b) The rate at which the wither proceeds.

It is a well established practice to spread leaf slightly thicker at the ends of the tats, near the alley-ways, and on the end banks of tats. This is especially necessary where artificial withering is employed. In very few factories is there any specific rule about how much extra is to be spread in these areas. The true reason for this is not the difficulty of organisation, but lack of information concerning the amount which should be spread. A few trials with one or two trays of the withering registration balance will indicate the variation in efficiency in different parts of the loft under normal conditions.

It is probable that attention to the distribution of leaf in this way will do much to minimise the trouble with teas which show an uneven infused leaf.

The rate at which wither proceeds certainly produces an effect particularly where artificial methods of withering are employed, but the nature of the effect has not been satisfactorily worked out. It is not the total duration of wither which is referred to here, but the even or uneven progress of the wither. It is very probable that the contradictory results obtained in comparing the effects of different durations of wither are largely attributable to variations in the rate of removal of moisture at different stages in the wither. In working out these effects in practice the wither registration balance would be a great asset.

K. B. W. JONES.

Assistant Tea Scientific Officer.

ANNUAL REPORT OF THE ENTOMOLOGIST

Advisory:--The number of enquiries during the year was 26 and in every case was accompanied by either the actual insects or specimens of damage caused. They related mostly to tea but also included a single enquiry each of Grevillea, Albizzia and Gum. With reference to the pests themselves, Boring beetles, Tortrix and Nettle Grubs formed the main subjects of the enquiries, the remainder referred to cut-worms, crickets and Aphids in nursery, Leaf-Rollers, Termites, Grass-hoppers, Scale insects and other pests of minor importance.

It must be pointed out here that the number of enquiries cannot be taken as representing a true guide to the prevalence or seriousness of any of the pests quoted. Enquiries regarding Red Spider and *Helopeltis* are conspicuously absent, but this is no indication of lack of damage caused by these pests.

LABORATORY WORK.

The following pests came under study during the year and the laboratory work together with observations made on them have been briefly dealt with below. It is admitted that the work done so far is mainly confined to the pests occurring in the neighbourhood of the Experimental Station, and the remarks concerning them are obviously limited in their application. No claim is made to possessing any intimate knowledge of the conditions obtaining in other tea districts of South India beyond what has been gathered from information accompanying specimens sent in for examination and report.

Helopeltis:--The study of *Helopeltis* together with Tortrix has occupied the major part of the time in the laboratory and several breeding experiments have been conducted. With the assistance of a consignment of *Helopeltis* specimens obtained from Travancore and ones collected locally from time to time, preliminary observations on the morphological characteristics of the species were undertaken. After a detailed comparison of the local forms with those of Travancore it became evident that the two belonged to different species, the former being *H. Antoni* and the latter *H. Theivora*. This identification has been corroborated by the authorities of the Imperial Institute of Entomology, London, to whom the materials were sent. *H. theivora* has also been obtained on tea in this district but is comparatively rare. It may, however, be stated with certainty that both the specimens do occur here. *H. theivora* has so far been observed to be exclusively confined to tea, but *H. Antoni* has been found on Tea and Red Gums.

With regard to the colour of the species '*Antonii*' there appears to be some variability. Although typically the general colour of the body, legs and antennae is black, a few examples may be seen to exhibit an orange-red thorax. The orange-red colour, which has been noticed up to the present only in the case of females gradually turns dark brown and ultimately black in a few specimens. It is considered therefore, in the case of females at any rate, that the original colour of the thorax when freshly emerged from the last nymphal instar is orange-red, this

colour eventually changing either to black with age, or remaining as it is. This fact, however, has not yet been tested in the case of males.

The colouration of the body and the length and posture of the drum-stick appendage have so far been recognised as of taxonomic importance in differentiating the species of *Helopeltis*. Although they are distinctive in themselves, there appear so many individual variations, especially noticeable in dry and spirit-preserved specimens, that it often becomes difficult in a few cases to decide the species depending on these features alone. Thus, in view of the indefinite nature of the characters now employed for purposes of identification it was thought desirable to make a careful study of all the external anatomical features of the insect so as to find out which feature or features may be taken as distinctive of the species. With this object in view a start has been made in the preparation of genitalia to ascertain if they vary in the different species.

Regarding the status of the pest here, it may be said that the damage caused by it is almost negligible, only stray bushes showing a few punctures. Even these bushes do not appear to suffer badly. The insects have been found from July onwards to January but their extreme scarcity does not allow of any conclusions being drawn as to which season is most favourable for their development. Breeding work started in the laboratory to ascertain the duration of its life cycle, copulation and egg laying habits, in the different seasons of the year could not be carried to completion for want of sufficient number of insects. One significant feature noticed about them in the course of study is the very slow rate of development as compared with that of the North-East Indian forms. In winter the slowness is further enhanced. The study will be taken up again in the ensuing year in Central Travancore.

Although the presence of *Helopeltis* in Nilgiri-Wynaad has been noticed as far back as 1917, there has been no appreciable spread of the pest. No satisfactory explanation of the factors contributing to this state of affairs is available although it may be opined that climatological factors, the presence of parasites or the question of host-preference may have a possible bearing on the problem. Regarding climatological factors, it is by no means clear what definite factor has an inhibiting influence on the pest and how exactly it operates. The influence of parasites may safely be ignored as none have so far been found, bred or suspected. The question of host-preference is a matter to be considered, as *Helopeltis* being essentially an insect of the jungle, may still have more attraction towards some jungle plant and migration therefrom to tea may not be found altogether necessary. This is still a matter of conjecture and an investigation on this line is necessary before anything more definite can be said on this point.

As diverse opinions have been expressed by different workers with regard to the effect of various factors on the incidence of the pest, it has been thought desirable to go into the question again; and with this object in view, a start has been made by collecting all the available data in respect of each factor from the observations of previous workers on the subject in the various *Helopeltis*-affected regions such as North-East India, Netherland Indies, Ceylon and South India. It is not proposed considering those factors concerning which all investigators are agreed. With regard to those where opinions are conflicting, it may be useful to investigate how such factors affect the pest in South India. It is believed that observations thus made will have a significant bearing on the question of control.

There is not so far any thoroughly reliable method for estimating the percentage loss in crop due to *Helopeltis* attacks. The figures given are at best only hazarded but the determination of the actual loss resulting from the attack of *Helopeltis* is extremely important, though perplexing. Unless a definite monetary value can be assigned, it is impossible to ascertain the extent to which expenditure on control measures is justified. In this connection the crop yield and soil analysis figures of some of the Travancore estates are being studied with a view to determining to what degree of accuracy the extent of damage by *Helopeltis* can be assessed.

A comprehensive list of all the available English and Dutch literature dealing with *Helopeltis* has been prepared and the more important Java publications, especially those throwing light on the pioniomics and control of the pest, have been translated.

Disphinctus humeralis, Wik:—This insect, belonging to the same family (Capsidae) as *Helopeltis* has been found doing almost the same kind of damage as *Helopeltis*. From the nature of injury on the leaves it is practically impossible to say which of the two is responsible for the depredation. One point of distinction, however, which has been noticed in the course of feeding experiments in the laboratory is that *Disphinctus*, unlike *Helopeltis*, leaves the bud and the first leaf practically untouched.

Apart from the identical nature of depredation, in appearance it looks similar to *Helopeltis*. On a superficial examination, the body-form, colour markings, the wings and the size of the insect all tend to give it the appearance of *Helopeltis*; but a close observation will, however, reveal the following differences which have been given in tabular form for easy recognition:—

HELOPELTIS.	DISPHINCTUS.
1. Head black in all specimens ..	Head orange-red in freshly emerged specimens and black in older ones.
2. Scutellar horn (drum-stick appendage) present ..	Scutellar horn (drum-stick appendage) absent.
3. Antenna long, knotty and bent at the joints ..	Antenna short and uniformly curved.
4. All legs black, mottled with white in certain places; only tibia and tarsus sparsely covered with hair ..	First and second pairs of legs all orange; third pair black in coxa, trochanter and half of femur, rest orange in nymphs but entirely black in adults; all joints uniformly hairy throughout.
5. Femur stout and knotty ..	Femur less stout and knotty.
6. Nymphs have the terminal part of the abdomen pointed and raised upwards ..	Nymphs are flatter in appearance and the terminal part of the abdomen is blunt and rounded and not raised as in <i>Helopeltis</i> .
7. Slightly smaller in size ..	Slightly bigger in size.
8. Less active ..	More active.

Tortricids on tea:—The family Tortricidae is represented on tea in South India by more than 3 or 4 species of insects. Although all possess the common habit of rolling and spinning together two or three leaves including the flush, and feeding on the enclosed parts, their respective life-histories differ in certain fundamental details which render a method of control applicable to one of them, of little avail in dealing with the others. Thus by the employment of the general term "Tea Tortrix" it becomes by no means certain which pest is actually meant. Enquiries therefore unaccompanied by the actual specimens of the insects for accurate identification make difficult the suggesting of adequate measures of control.

Of the 3 or 4 members of this group that have so far been noticed feeding on tea, only two are considered of importance economically and the other one or two found occasionally are of little significance. Of the two economically important species, one has been tentatively identified as *Laspeyresia leucostoma* and the other as *Homona coffearia*. For the sake of convenience and based on their relative sizes, the former is referred to as "Small Tortrix" and the latter "Large Tortrix." Some doubts have been hitherto expressed both by Indian as well as Ceylon Entomologists with regard to the occurrence of *Homona coffearia*, Nietn, in South India. A comparison of the local "large Tortrix" with the Ceylon species now at hand, leaves no doubt that *H. coffearia* does occur in South India also. *Homona menciana* is the form found throughout the tea districts of North East India, where it is recognised as comparatively of little importance as a pest of tea. It has been held by the Thee Proefstation of Java that *H. coffearia* and *H. menciana* are identical, the female of *H. coffearia* being named "menciana."

I give below a short account of the preliminary observations on the two pests which appear locally.

SMALL TORTRIX.

The Tortrix which is of greater importance to South India at the present time is the "Small Tortrix." It is found to be present on tea practically throughout the year and appears to be fairly wide-spread throughout the tea districts of South India, reports having been received of its occurrence in the Nilgiris, Wynaads, Kannan Devans and Central Travancore. *Laspeyresia leucostoma* has been recognised for a long time in the Dutch East Indies as a serious pest of tea but it has not so far been recorded as a pest either in Ceylon or North-East India. The caterpillar attacks the flush and is therefore known popularly as the "Poetjockroller" (flush-roller) in Java to distinguish it from another pest, the Tea Leaf-Roller which they call the "Dwarsblad-roller" (cross-leaf-roller). The method of tying up the leaves is very characteristic and this feature alone is enough to distinguish this pest from another. The margins of the leaf adjacent to the bud is first rolled inwards by means of strands of silk produced from its body so as to enclose the bud; as feeding proceeds, the next one or two adjacent leaves may be included in the fold. Thus in a typical instance, the compactly folded bud and two leaves may be seen as having been thrust into a half-folded third leaf giving the whole structure a conical appearance.

Description:—The eggs of this moth have so far not been noticed in spite of considerable search made in that direction. The possibility of the egg being laid on a nearby shade or jungle plant and the migration therefrom of the tiny caterpillars to tea can be safely eliminated in view of the fact that the pest is found even on tea far removed from any

such shade or jungle plants. Further, the caterpillars have made their appearance on shoots cut from bushes and kept in the laboratory for a few days, which would suggest their having been present in the egg stage on the shoot itself prior to cutting. With the data so far available it would appear that eggs are laid singly on the plant itself and not in masses as in the case of the Ceylon Tortrix. No direct evidence, however, is so far forthcoming.

In the absence of any precise information regarding the egg, the duration of the larval life is imperfectly understood. Following the development of the very early stages of the caterpillar by rearing in the laboratory, it may roughly be estimated that the caterpillar will take about 3 to 4 weeks to pupate. The caterpillar is pale yellow, often tinged with brown, but it may take on a pinkish brown colour after a full meal. The head and thorax are pale yellowish brown and the body is sparsely coloured with hairs; when full grown it measures about 10 to 12 mm.

Pupation takes place, not on the scene of its larval depredation, but on an older leaf lower down the stem to which the full-fed caterpillar descends. Two incisions each of about 4 to 5 m.m. long and 13 to 15 m.m. apart, are made in the margin of the leaf chosen for pupation, and the portion of the leaf thus set free is folded back and its margin cemented on to the adjoining surface of the leaf. The fold thus constructed is lined internally by a layer of silk to form a covering within which the larva prepares itself for pupation. The pupa when fresh is yellowish brown, later changing to dark brown and measures approximately 7.5 m.m.

The emergence of the moth takes place after a pupal period of 17 days. During the act of emergence the major part of the pupa is drawn out of the leaf-fold and subsequently the moth emerges. The moth is of a small size, about 6 to 7 m.m. long and 13 m.m. across the wings. Its colour is a mixture of brown and dark grey, tinged with violet and traversed by thin streaks of bright yellow. The costal fold found in the forewing of the male insect of the Ceylon Tortrix is absent here. Wings are wrapped round the body while at rest and the moth usually flies at dusk with a quick darting motion, remaining underneath the bush or any other place of suitable shelter during the hot hours of the day. The longevity of the moth is about a week.

Depredation:—The characteristic method of tying up the leaves has already been referred to. The caterpillar stationed inside the fold nibbles the leaf, first in the form of streaks and later in patches, generally from the upper surface, the lower epidermis of the leaf remaining intact. These patches eventually turn brown and spread all over. No holes are generally made on the leaf except one or two at the sides for purposes of entrance and exit of the caterpillar. The mass of excreta is retained in the fold itself. When one flush has almost completely been nibbled, the caterpillar migrates to another and in this way a single caterpillar has been observed in one case attacking 4 flushes, one after another. The leaves, as a result of the caterpillar's feeding, crinkle and often appear leathery, a condition which may persist long after the caterpillar has left. Young tea, and tea coming in from pruning are generally badly attacked and such plants can ill-afford to have their growing shoots damaged. This inhibiting influence on the growth of the plants may result in a serious set-back to their development.

Control:—Remedial measures employed to combat the Tortrix in Ceylon such as, collection of egg masses and the employment of wind-

belts or Tortrix flight-breaks consisting of Acacias and other shade trees which harbour the pest in preference to tea are obviously unsuitable for the local pest. Firstly, the eggs of the South Indian species are by no means easy to find, and secondly, our lack of knowledge of any other host plants combined with the imperfect understanding of the habits of the moth prevent for the present the institution of suitable flight-breaks. There was no opportunity to conduct field experiments with any control measures although one or two measures have suggested themselves during the course of the study. It is anticipated that facilities and opportunities will be available during the coming year for undertaking the study of this aspect of the problem.

The simplest and what appears to be by far the best method of dealing directly with the pest is the systematic hand-picking of the caterpillars. It is suggested that in addition to the removal of shoots normally ready for plucking, all visibly attacked shoots should also be plucked. One such plucking would not eliminate the pest since eggs may be present on shoots too young to be plucked, pupae may escape detection, and there may be moths still on the wings shortly about to deposit their eggs. But after the process has been repeated a certain number of times, say 6 to 8 at short intervals, the estate should be entirely free from the pest. The intervals will have to be adjusted according to the elevation of estates, those at about 1,000 feet requiring intervals of 8 days while those at altitudes of 4,000 or 5,000 feet would require 12 days' intervals. This method has been tried with some success in Java in the case of *Laspeyresia leucostoma*. The cultural objection to heavy plucking in young plantations must undoubtedly be admitted but it is regarded as probably the lesser of two evils. It is suggested that it may be advantageous to conduct practical trials on South Indian Estates on lines similar to those indicated above.

If the tea is too young to be hard-plucked and the pest is found very prevalent, it may also be advantageous to pinch the attacked leaves to destroy the caterpillar without removing the leaf.

Spraying with a stomach poison like Paris Green has no doubt been tried elsewhere and found to have a beneficial effect in reducing the pest but this measure should only be resorted to in the case of tea not in bearing.

With regard to the parasites attacking the pest in its caterpillar stage, two small hymenopterous parasites have been bred out so far and have been identified as *Elasmis homonae*, Ferriere (*Elasmidae*) and *Asympiesella indica*, Girault (*Eulophidae*) respectively. The check they exercise on the pest does not appear to be very great; however, further careful investigation of the question of parasites is essential.

"LARGE TORTRIX."

This pest like the "Small Tortrix" appears throughout the year but does not seem to be so widely distributed as the "Small Tortrix." Fortunately it has not attained such alarming proportions in South India as its confrere in Ceylon but on that score it can never be looked upon as of no consequence. Its potentialities for mischief are in no way inferior to those of the Ceylon Tortrix and, given favourable opportunities, may at any moment prove to be a pest of very serious consequence second only to *Helopeltis*.

Description:—The eggs are laid in a mass on the upper surface of the tea leaves low down on the bush. The egg-masses have hitherto

evaded observation and it was only recently after considerable search that two such masses were procured from the situations mentioned above.

Each mass consists of 150 to 200 eggs; it appears pale yellow when fresh, and is with difficulty distinguishable from the small patches of sun-light passing through the leaves to the interior of the bush. The individual eggs are flat, thin and slightly oval and are arranged in rows over-lapping one another like the scales of a fish. When about to hatch the mass turns brownish, studded with black dots each dot representing the head of a future larva. The incubation period is about a week.

The freshly hatched caterpillars are about 1.5 m.m. long, yellow in colour with black heads, and very active. They soon disperse, and after some wandering, reach the young shoots which they convert into their future abode. Very little feeding takes place during the first week, only small portions of the leaf being nibbled here and there. After six moults (sometimes only five) have occurred at intervals ranging from 3 to as many as 15 days, the caterpillar will have fully developed and be ready to pupate. The full-grown caterpillar possesses a black head, a black prothoracic plate on the segment behind the head, and a green body the total length of the larva being about 20 to 25 m.m. The body including the head, is sparsely covered with thin hairs and the transverse white line reported as existing in the Ceylon Tortrix between the head and the prothoracic plate is also to be found here. Roughly the caterpillar stage may be taken to last 4 weeks.

Pupation may take place either in the same fold in which the caterpillar was feeding or on a separate leaf wherein a fold has been prepared for the purpose. The pupa is dark-brown in colour, that of the future female moth being larger than the one destined to give rise to a male.

The emergence of the moth takes place after a period of pupation lasting from 6 to 9 days. Typically the general colour of the moth is yellowish brown interspersed with shades of dark-brown and grey. It is very variable and differs markedly in the two sexes. The male is further distinguished from the female by its smaller size and the presence of the costal fold on the forewing which the female lacks. Copulation and egg-laying habits are under investigation.

Depredation:—The newly hatched larva will take up a position in the in-rolled margin of a partly-opened leaf of the shoot, the operation of nibbling commencing from this position. It is capable of migration from leaf to leaf even at this stage and the brown crinkled edges of some of the young leaves very often noticed on a tea bush are due to this caterpillar. During the first 2 or 3 moults of the caterpillar, say 8 to 10 days from hatching, very little damage is done to the leaf and it is only later that its feeding may be considered voracious. It then begins to roll and web the leaves of the flush at random and not in the methodical way characteristic of the "Small Tortrix." It takes care, however, to leave a clear passage to enable it to move about inside the fold. Further, by cutting off the tips of the leaves the passage is kept open both above and below, so that the caterpillar may suspend itself from either end when a danger is apprehended. Having taken this precaution, it begins to feed inside, taking off lumps here and there thus producing large holes in the fold. Without remaining in one fold till the whole of it is consumed, it migrates to another thus affecting more leaves than it actually requires. The depredation is not confined to the younger leaves only since caterpillars have been noted feeding, in addition, on older leaves.

Control:—In the absence of adequate knowledge relative to the pest, such as its incidence, seasonal history, number of broods a year, other host plants, etc., the measures of control to be suggested at present must, of necessity, be imperfect. Even in Ceylon where the Tortrix has been established for over 25 years and continued attention bestowed on the problem, not one of the various methods recommended from time to time can be said to have met with unqualified success, and the pest is still very serious. The problem there is now being tackled energetically from an aspect so far not considered, *viz.*, the biological method of control. This offers a promising field for investigation especially in view of the fact that success has attended similar trials with other pests elsewhere. It aims at the utilisation of parasites for the control of the pest by artificial breeding in the laboratory and subsequent liberation and colonisation in the field. Trichogramma, an egg-parasite of the Tortrix, has been chosen for the purpose and mass-rearing of parasites has been started. No field liberations appear to have been made yet and to what extent these parasites become established and help in checking the pest still remain to be seen.

With regard to the local pest, an egg parasite, even if found, may not be of much advantage because of the difficulty in searching out egg-masses. We have, however, a few larval parasites, which do at times act as very effective natural checks, but to what extent they lend themselves for utilisation as a practical measure of control can only be decided after a thorough investigation. At present, the check they exercise can only be looked upon as auxiliary to other methods of control. One of the larval parasites is an ichneumonid, *Phytodietus capuae*, also recorded in Ceylon. Another is a Tachinid fly which has not been mentioned in any of the Ceylon records of Tortrix and its identity is not yet determined.

A very common method of dealing directly with most of the caterpillar pests is hand-picking and destruction of the caterpillars. This method in the case of the present pest may be tried with some advantage only during a mild attack; for in a widespread attack it becomes practically impossible to carry out this operation efficiently and even a few caterpillars left out during picking will be able to carry on the pest. Further, there is another serious draw-back that, while destroying the caterpillars, their parasites too perish which is undesirable.

So it becomes evident that the control of this pest must be sought for by other means and with a fuller knowledge of the pest the various possible methods of control will be enquired into.

Boring Beetles:—During the year under review the number of enquiries regarding these pests has been evident to a large extent than on any other depredator. The enquiries have all emanated from the Anamalais and Central Travancore. Of the several different species of *Xyleborus* reported as occurring on tea, one was identified as *X. semiopacus* and another *X. andrewesi*. Two more, also belonging to the same genus *Xyleborus*, have been sent for specific identification and a reply is awaited. *Xyleborus testaceus* is another which has been previously reported on tea in Anamalais (*vide* Adm. Report for 1928-1929). The definite presence of *X. fornicatus* on tea has so far not come to notice but on this score we need entertain no doubt whatever with regard to the existence of this pest in South India as at one time expressed by Mr. Speyer working on Shot-hole borer in Ceylon. Within recent years it has been reported occurring on a number of trees in the Nilgiri and Nilambur forests by Dr. Beeson of the Forest Research Insti-

tute, Dehra Dun, subsequent to its first record from Bangalore on Castor. Thus it should not be surprising to find it on tea as well and its apparent absence now may be ascribed to no serious attempts having been made to investigate this point.

In view of the increasingly large number of species of *Xyleborus* occurring on tea, coupled with the fact that the life-history and habits of none of them have been adequately studied, it is highly desirable that a thorough investigation of the economic importance of the various species should be instituted. The status of these several insects as pests affecting tea has not been determined and it is becoming clear that the presence of these beetles cannot be dismissed as of minor significance. For example, *X. semiopacus* has been considered in Ceylon to be of very little consequence to tea since it was found to attack bushes previously killed by some fungoid disease; it does not appear to be as harmless in South India as in Ceylon, since in one instance it caused serious damage, being ultimately responsible for the killing of more than 150 bushes, without any indication of a previous fungal attack. There may be many more instances of this nature but accurate information on this point is lacking.

Thus in this state of uncertainty with regard to the relative importance of these borers it is very necessary to be alive to the possibility of danger through them and to take immediate steps to check the insects at the first signs of appearance before they are permitted to spread and become established. The measures employed for combating the Shot Hole Borer may be followed also in other instances of borer attack; these measures have been out-lined in the Administration Report for 1928 to 1929, pp. 15 to 16.

There was also a report of a branch of *Grevillea* attacked by Pink disease in which some scolytid borers were also seen at work. The beetle on identification proved to be *Ecoptopterus sexspinosus*, but beyond the bare knowledge of its name no further information regarding its life history or habits is available in any of the references we have at hand, and it is probable that it has not attracted attention hitherto and requires further investigation.

Thrips:—Two species of thrips occurring on tea have been observed. They are found on the older leaves of the bush. The damage occurs on the under surface of the leaves and is confined to certain patches only. Such patches appear discoloured and look yellowish brown speckled with black spots here and there, the spots being the solidified excreta of these insects. The attacks are mostly confined to weak bushes. One of the species has been identified as *Heliothrips haemorrhoidalis*, and the identity of the other is still uncertain. A short account of the former species has been written up, and a few sketches and microscopic mounts have been prepared.

As the damage caused by these insects is very slight, special measures of control are hardly necessary. Timely plucking of the affected leaves and burning them may, however, be adopted. Better still is an application of manure to the weak plants to make them more vigorous.

There is also a third kind of Thrips found on the bud and tender leaves of tea on the Experimental Station, but whether it is capable of doing similar damage to what has been attributed to the species occurring in Darjeeling is still open to doubt. An investigation into the matter will be taken up as opportunities arise.

Nettle Grubs:—This pest was reported from three estates in Travancore during November–December. The species involved was identified in all cases as *Thosea cervina*. In one instance it was reported as having spread over the entire estate and the damage was considered serious. In another, the cocoons were infected by a kind of fungus (*Cordyceps*?) that had effectively killed the pupae inside. This was very interesting especially in view of the possibility of this fungus acting as a check on the spread of the pest. An experiment was therefore started in the laboratory to test whether the fungus, in the stage in which it was received, could spread on to healthy cocoons in its vicinity. The experiment had to be abandoned owing to the interference of ants which had been inadvertently introduced in the soil that was used for the experiment. The next series of artificial infection experiments showed, however, that healthy grubs allowed to pupate in the fungus-infected soil did not get any infection of the fungus but developed normally. This eliminates the possibility of fungal infection of the grubs taking place from the soil when they enter the ground for pupation. The other possibility is that the grub itself must have been attacked by the fungus while on the bush and that on entering the soil and while forming the cocoon there, the fungus obtained the upper hand ultimately killing the pupa. But direct evidence on this point is lacking. The causative fungal organism has been brought under culture by the Mycologist and its nature and identification are engaging his attention.

Nettle Grub is a very serious pest in Ceylon but is not considered a regular pest of tea in South India in the sense that it does not appear year after year, but breaks out sporadically, when large areas may be stripped of all the leaves on the bush. With regard to control, the measures adopted in Ceylon may be tried here also and the following is a summary of control measures recommended by the Tea Research Institute, Ceylon (Tea Quarterly, Vol. V, Part II, May 1932).

1. Collect grubs when outbreak is "slight" or "medium" in severity. Collecting tins should be smeared with crude oil.
2. Collect cocoons and destroy same periodically during the day in the field from which they are collected.
3. If attack is severe and field is due for pruning, then prune attacked area. Prunings might be buried if grubs are very young. If grubs are half grown then all prunings should be burnt immediately to prevent grubs making cocoons.
4. If the field cannot be pruned then spray with a solution of laundry soap and water (rate one pound soap in 30 to 40 gallons of water).
5. When pest is found on (a) tea-seed bearers, (b) young tea in clearings, (c) tea nurseries—spray with either lead arsenate (1 lb. in 30 gallons of water) or Paris Green (1 lb. in 60 gallons water).
6. Train a small gang of podians, 6 to 10 in number, to examine regularly throughout the year all the fields and especially those which have had nettle grubs previously.

Tea Aphis:—(*Toxoptera aurantii*, Boyer). This pest appears to be widely distributed throughout the tea districts of South India and though looked upon as a minor pest, is often capable of causing considerable

damage to nurseries and young clearings recovering from pruning. Kerosine emulsion, Phenyle solution and Tobacco decoction are generally recommended for application to the foliage and have met with good results. Fortunately however, natural agencies also act as checks and considerably reduce the infestation. Syrphids, Hemipterids and Coccinellids (lady-birds) prey upon the aphids and a minute hymenopterous insect parasitises them. The Syrphid flies whose maggots feed on this pest, belong to two species and are identified as *Paragus serratus* F. and *Paragus atratus*, de Meij.

Tea Seed Maggots:—Several seeds which were put out by the "seed at stake" method had failed to germinate and were received from an estate in the Anamalais. On examination they were found to be teeming with fly maggots. Whether the decay caused in the seed was primarily due to the feeding of these maggots or whether the latter gained entry into the seed subsequent to the decay set in by other factors, it was not possible to decide with certainty.

Adrama determinata, Wlk. is a fly in Java which is known to lay its eggs in the seed lobes of germinating seeds and the larvae or maggots on hatching feed on the contents of the seed rendering them useless. Trials were, however, made with these flies, which emerged in large numbers in the laboratory, to ascertain if they lay eggs similarly on germinating seeds but they failed to do so. As maggots and mites are generally noticed inside the decayed seeds even in the local germinating beds, it is presumed that the attack of maggots in the case in question was secondary and had taken place subsequent to the decay of the seeds. The flies have now been identified as *Plagiostenopterina aenea*, Wied.

Red Slug:—(*Heterusia virescens*, Butl.) This pest was observed twice during the year, once in October and again during May. It is not uncommon to find it in association with Nettle-grubs during an outbreak of the latter pest. After a heavy down-pour of rain, the male moths may be attracted to light in large numbers the females not showing this characteristic.

Red Slugs can be controlled more easily than Nettle grubs because of their conspicuous colour. In Ceylon the control measures include the collection of caterpillars and cocoons. The latter are found on the older leaves of the bush or on fallen leaves. They may also be found on the leaves of inter-planted green manure trees. Collecting coolies are put on as soon as the pest is detected and all fallen leaves are swept up from infected areas and burnt so as to destroy all cocoons forming there. Spraying with soap solution may also be of value in checking small outbreaks. The out-break of Red Slugs is in a large measure controlled naturally by Tachinid flies which heavily parasitise the grubs.

Grass-hoppers:—(*Orthacris* Sp?). These are polyphagous insects known to attack almost every kind of grass and other low-growing plants and are not specific to tea only. They are widely distributed throughout Southern India and their occurrence on tea is only sporadic, when, if the hoppers appear in large numbers, the damage done may be great. Reports of their occurrence on tea have been received from the Nilgiris and Anamalais and they have also been noticed occasionally on tea in this district. Their life-history has been but imperfectly studied and until we know more of the pest, control measures apart from catching the hoppers with the help of small bag nets are too uncertain to be suggested.

Breeding Work:—Apart from the work of breeding entailed during the course of study of Tortrix and Helopeltis, a number of insects found feeding on tea and other shade plants have been bred in the laboratory. This attempt was made partly with a view to increase the station collection and partly to secure as many of the local parasites of the various pests as possible. Several parasites which have been noted from time to time have been collected for identification and future study.

Collection:—It has been endeavoured to maintain a representative collection of all the pests attacking tea and other shade and green manure plants grown on tea estates in South India. A number of insects have already been collected and the collection is being supplemented from time to time.

Identification:—Hitherto systematic identification of South Indian pests does not appear to have been undertaken. The species occurring in South India and their distribution are by no means definite and the treatment so far followed has been only with reference to allied pests occurring in North East India, Ceylon, or Java. The work of correct naming of the various South Indian pests has been started by comparing the local forms with those obtaining in other countries and by sending materials to specialists on the subject.

General:—As has been done in the case of Helopeltis, a catalogue of references to all the literature on the pests of tea and shade trees has been prepared and is being added to from time to time. All the literature, as far as available at the Station has been consulted and abstracts of those dealing with the more important pests that are also of significance in South India have been prepared.

S. ANANDA RAO,
Entomologist.

ANNUAL REPORT OF THE MYCOLOGIST

Advisory:—49 specimens were received during the year. The majority concerned tea while a few of them related to diseases on *Grevilleas* and *Dadaps*. Reports on some specimens of seedlings and nursery plants attacked by eelworms have been written.

Touring:—During the latter part of July 1932, I was asked to investigate certain diseases prevalent on an estate in the Anamalais; the diseases found are discussed in this Report. Two visits were paid to Mango Range in connection with the investigation of Pink Disease.

Laboratory Work, etc.:—The study of various diseases of tea has been undertaken and attempts have been made at obtaining the various fungi in pure cultures on artificial media, whenever suitable specimens have been available. To supplement laboratory work field studies were made whenever opportunity arose.

LEAF DISEASES.

Black Rot:—Two different species of *Corticium*—*C. theae* and *C. invisum* are responsible for this disease. The first of these species is known in Java, the other being reported from Ceylon and North-East India. The South Indian species has not yet been determined.

The disease appears during the monsoon especially on tea due for pruning. Damage is indicated by a blackening of leaves followed by a softening and rotting of the tissues. To a certain extent the branches are also attacked by the fungus. The affected leaves do not fall off but remain attached to the twigs by threads of mycelium passing from the stalk to the under surface of leaves. The fungus being only superficial has not so far been observed to penetrate into the tissues of the leaves.

The fungus spreads to older and healthy leaves as a result of attacked leaves falling on them. The production of spores on the film occurring on the under-surface of leaves is another means of dissemination causing primary infection. The presence of dead leaves near the surface soil may also encourage spread.

Treatment should include the removal and burning of all attacked parts. In addition, spraying of the bushes with either lime sulphur solution or Bordeaux mixture, should be done to kill any fungus that may still persist on branches after the attacked portions have been removed.

Brown Blight:—This is caused by *colletotrichum* Sp. The attacks are confined to the older leaves. Leaves so attacked are characterised by the presence of a Brown patch on the under surface on which the fruiting bodies of the fungus are produced. The fructifications are of two kinds, the conidiospores produced on the surface and the ascospores produced in the perithecial bodies. Both kinds of fructifications have been observed on artificial media. The brown setae which are part of the conidial fructifications are not produced regularly, sometimes they were found forming and at other times no such setae were, however, observed. The conidial masses are sometimes pink in colour. Blackish

brown perithecia have been observed on agar cultures. Appressoria have been observed on agar cultures. Appressoria have been profusely produced on agar slants. These are the organs by the help of which the fungus attaches itself to the host. Inoculations will be attempted with a view to studying the fungus in relation to the host.

Grey Blight:—*Pestalozzia* Sp. causes Grey blight of old tea leaves. This fungus has also been found occurring on the branches of the bush. Black spore masses have been produced on artificial media. Inoculations carried out by spore suspension on leaves indicated that the fungus was capable of infecting wounded tissues, the entire un-wounded leaves on which similar suspensions were made failing to show any development of the fungus.

Cercospora Leaf Spot:—The presence of brown circular spots on tender leaves and some old leaves is characteristic of this disease. It occurs, according to observations made on the Experimental Station, during the monsoon and disappears before the rains have ceased. No report of this fungus causing any considerable damage to the leaves has been obtained so far. Attempts are being made to obtain this fungus in culture.

STEM DISEASES.

Pink Disease of Tea:—An investigation of this disease was commenced during September. The work so far done is far from complete, the observations made being of a preliminary nature.

A similar disease has been observed on other plants—Cinchona, Rubber, Coffee, etc., in addition to tea in other countries. The disease is present in North-East India but not to any great extent. It is prevalent in all South Indian Tea Districts with the exception of the High Range.

Pink disease is a disease occurring on the branches of tea and becomes evident during the monsoon. It is characterised by the drying up of twigs, and formation of cankers on fairly thick branches. The presence of pale leaves on the branch, when the attack is fresh is another indication of the presence of the fungus. The bark is killed in patches and results in an abnormal growth of the branch exhibiting gnarled and cankered areas.

Attacked bushes are scattered indiscriminately over estates and the disease has been noted on nursery plants. The disease is confined to the branches and has not been observed to cause the death of entire bushes.

Certain field observations were made in connection with this disease. It was evident that both China and Assam jats are susceptible to the disease. Only one instance of a shade tree, in this case a *Grevillea*, has been found indicative of being attacked by Pink disease.

An examination of the diseased branches was carried out in the laboratory and the following relevant details are given:—

1. **Mycelial Stage:**—The fungus starts as a growing mycelium on the bark and gives, on close observation, a shining pinkish appearance to the branch when dry. This form of the fungus is only seen with difficulty during heavy rain.

2. **Nodular Stage:**—The second form consisted of the condensations of the growing mycelium on the branches in the form of pink

pustules or nodules. This form was observed all over the branch and was not confined to any one side.

Sections obtained of the stems with the second form revealed the presence of the fungus in the cortical cells extending as far as the wood. So far no mycelium has been noted in the woody tissue. It is therefore at this stage that the fungus appears to parasitise the plant. On grevillea such condensations were visible on the numerous lenticels on the bark, but no such lenticels were found on the green stems of tea where these masses were observed.

Some of the branches possessing these pustules were kept in a moist chamber and within about three days a profuse mycelial development took place, followed by the formation of pinkish to orange red gelatinous masses in the region where these nodular masses were situated. A longitudinal split was evident wherever these masses were forming. One of the gelatinous masses when teased out and examined was found to consist of small irregular cells, a few of the latter bearing certain spore characteristics.

During dry weather the fungus has been found to occur on the bush in the shape of these pink masses, but not so conspicuously. They are very much shrunken in size. When moist conditions prevail these pink masses are clearly visible as a result of the profuse development of mycelial threads. An analogous feature is to be found in another form of corticium causing the leaf disease of coffee where also sclerotia are produced during the adverse conditions experienced during hot weather. It is therefore possible that these pink pustules represent a resting form of the fungus, development re-commencing during the next rainy season.

3. **Corticium Stage:**—A third form of the fungus which is mostly confined to the under surface of branches was of the nature of a pink encrustation which bore the spores—basidio—spores of the fungus. With age the pink colour of the crust disappeared and it assumed a yellowish white colour. This is referred to as the corticium stage.

The fungus therefore occurs in three different forms, any one, or all, of the forms being found on branches attacked by pink disease.

Cultural work was started in November and isolations gave two different fungi—a *pestalozzia* and another fungus bearing the pink mycelium. *Pestalozzia* produced abundant spore masses and was isolated. The pink mycelium produced no fructification and it has been isolated for study. The fungus producing the pink mycelium and causing pink disease has been tentatively identified as *Corticium salmonicolor*.

A strain of the fungus has been maintained for study in artificial agar medium. Only a mycelial development has been obtained in the cultures. Since attempts at obtaining growth of the fungus from either the mycelial form or the corticium form has in most cases failed to give satisfactory results, the pink or nodular form has been employed for this purpose.

Subsequent inoculation of the fungus in culture on sterilised blocks of stem resulted after a preliminary growth of the mycelium in the formation of the gelatinous pink masses, similar to the ones observed on specimens of tea. These pink masses, when grown again on agar slants, gave mycelial growth. Recent observations on the mycelium found on some of the older agar cultures indicated the formation of the pink masses. A microscopic examination of these masses and their contents

exhibited certain resemblances to the *Necator* pustules and their spores. No such pustules were, however, observed to form when the stem was deprived of its bark.

Inoculation experiments on potted tea plants have been undertaken. Some of the inoculations have shown a mycelial growth and further observations are necessary in this direction to come to definite conclusions regarding the nature of the disease. In addition to the potted plants used for inoculation, some twigs have been placed in a jar of water and after sterilising the surface of the bark, the twigs were inoculated with a pure culture of the fungus. In one of the twigs mycelial condensations of a pink colour have formed, resembling the pink pustule found on branches attacked by the fungus.

Concerning the remedial measures we have still to depend on what has been done elsewhere. Since the fungus to a certain extent lives within the bark, the remedial measures should aim at killing the fungus within; this could only be done by either preventing a growth of the fungus on the plant by means of an application of a fungicide, or removal of such branches from the bush. Experience in other countries indicate that any one measure does not result in eradicating the fungus. The combined operations of removal of attacked branches well below the canker followed by the application of a fungicide is therefore recommended. In Java it is suggested that good aeration to ensure a free passage of air from bush to bush prevents moist conditions obtaining near the soil and should therefore serve to check the development of the disease. This has been accomplished by the removal of the lower branches of the bushes. The disinfectants so far used are carbolineum, tar and similar adhesives, but indeterminate results only have accrued. In Ceylon it is suggested that a shortening of the pruning cycle enables the bush to throw off an attack of the fungus. In South India where a three year pruning cycle has been practiced, the fungus has been found occurring even after the first year of pruning. It is possible that the time of year chosen for pruning may exert some influence, not on the prevalence of the disease, but on its virulence. This is discussed elsewhere.

The application of manures containing potash, which is considered to build stronger tissues, has been suggested. This would tend to give the plant greater resistance to attack, and would assist in reducing the disease.

Nectria:—Another stem disease causing die back of pruned branches has been noticed. It is a species of *Nectria* (*N. Cinnabarina*?). Work conducted in North-East India indicated the probability of the fungus being a very weak parasite capable of entering wounded tissues. The application of a fungicide to protect the cut ends of pruned bushes might prevent the fungus from gaining entry. Skene's wax and Mason's mixture are useful means for the protection of pruning cuts. The diseased bushes should be pruned to clean, good, wood and the cut ends protected. In very late cases of attack fructifications are produced which are of a reddish to yellowish red colour.

Pleonectria:—On some dead snags of tea, fructifications of a bright red colour were found. The wood was slightly discoloured. The fungus was identified by the Government Mycologist at Coimbatore as a species of *pleonectria*. Similar fructifications were also found on some dead branches of a tree. From its appearance on dead snags it is considered to be a saprophyte.

ROOT DISEASES.

No field study of root diseases has been made and observations made in most cases are confined to specimens received for examination.

Brown Root Disease:—This disease is characterised by the presence on the surface of the root of a soil crust mixed with the brown mycelium of the fungus. If death of bush occurred sometime before examination the removal of the bark of the root discloses the presence of yellowish brown streaks in the wood. It is generally assumed that the disease originates from felled trees, wooden posts, etc., and spreads through the soil. Bushes are infected by contact with such sources of the disease. In many cases the original source of infection may have entirely disappeared and the death of occasional bushes may suddenly come to notice.

No fructifications are reported as forming on tea.

Poria Root Disease:—(Red Root Rot). From reports it would appear that this disease is prevalent mainly on young tea. It is characterised by the presence of red, white and black mycelial strands found on the surface of roots and in some cases incrustated with soil particles as in the case of Brown Root Rot. The wood generally does not show any discolouration, and appears healthy and dry.

This fungus has been brought into culture and inoculation of the fungus on sterilised blocks of wood resulted in the production of a pink or creamy fructification resembling that described for *Poria*. When a specimen of the diseased root was allowed to lie in moist soil, the production of fructifications resembling the one obtained when the fungus was inoculated on a sterilised block of wood has been observed. The fungus is probably *Poria hypolateritia*.

Black Root Rot:—Tea bushes are subject to another root disease caused by *Rosellinia* Spp. Two different species of this are known causing Black Root Rot, *viz.*, *R. arcuata* and *R. bunodes*. Specimens received at the Station conformed to descriptions of *Rosellinia arcuata*.

The disease may be identified from the appearance of roots. These are covered with greyish-black strands of woolly mycelium. The fungus grows to a certain extent on branches near the collar and assumes a white colour in the growing region. On opening up the bark, white, star-shaped structures may be seen on the inner surface. Similar structures may also be observed on the surface of the wood. These white stars turn greyish black on exposure.

This fungus has been brought into culture. Structures resembling sclerotical masses have formed on agar slants, after a growth of mycelium which is at first colourless but later turns brownish black. Inoculations on sterilised blocks of wood have not produced any fruiting bodies up to the present. Blocks of wood on which the growth of the fungus has been obtained were buried near seedlings sown in pots but no visible sign of the disease either by the death of the seedlings or by the development of mycelia has taken place.

Ustilina:—(Charcoal stump rot). This disease is due to a fungus identified as *Ustilina zonata*. The formation of the fruiting bodies of this fungus was observed on some tea branches near the collar and resembled black irregular masses.

In the case of this fungus no external mycelium is found on the surface of the root. On opening up the bark, however, greyish white fans formed of mycelia may be seen on the inner surface of the bark and on the surface of the wood. In addition, black streaks of an irregular nature are present in the wood, showing the extent of penetration of the fungus.

The disease is known to originate from dead timber. *Grevillea* and *Albizzia* appear to be most susceptible to this fungus. A case of *Grevillea* bearing abundant fructifications of this fungus has been observed.

Velvet Blight:—The presence of a velvety pad at, and slightly above, the region of the collar has been observed on specimens of tea. The roots of such bushes were found to be covered to some extent with strands of a violet-brown colour. The velvety pad above the soil surface was about 3 to 4 m.m. thick and surrounded the branches on the stem. This has been identified as a species of *Helicobasidium*.

This disease has been reported from Java and the identification has been based on the description given by the Mycologists there. Since most of the specimens had not formed fructifications, further attempts to identify the fungus has not been possible. Attempts to obtain the fungus in artificial cultures have not met with success so far.

The removal of the velvet covering and the application of carbolineum have been suggested in Java and the method seems to have met with success. Since the mycelium of the fungus has been observed on the roots, root disease treatment must also be undertaken.

Treatment:—Remedial measures towards combating any of the root diseases should follow almost similar lines, *viz.*, the isolation of such areas and removal of the dead bushes. Isolation may be carried out by a system of trenching around the affected bush, which must be removed, and should include a few healthy bushes surrounding the attacked plant. It is suggested that these healthy bushes may with advantage be left out of plucking till no further deaths are noticed in the area. The necessity for the removal of all the dead matter around tea bushes is already fully appreciated and requires no amplification here.

Besides the above measures a soil disinfectant should be applied. Lime which was so prominent until recently has been proved to have a detrimental effect on the growth of tea and instead of checking the spread of the fungus encouraged its development by increasing the alkalinity of the soil. Attempts have therefore been made to try the effect of certain sulphates on the growth of these fungi.

Sulphate of Iron which was recommended has been tried on *Rosellinia* and the results obtained are tabulated. The following method was adopted:—To agar tubes were added different percentages of the chemical before sterilisation and the measurement of growth of the fungus obtained after a preliminary growth of three days.

GROWTH MEASUREMENT						
Percent- age of FeSO ₄ used.	pH of medium before addi- tion.	pH after addition of salt.	4th day in m.m.	7th day in m.m.	10th day in m.m.	13th day in m.m.
0.	7	—	6.0	12.0	16.0	20.0
0.1%	7	6.71	5.0	9.0	15.0	18.0
0.4%	7	4.72	2.0	3.5	4.0	7.0
0.6%	7	4.34	no growth	0.5	2.5	5.0
0.8%	7	4.24	no growth	0.5	2.0	5.0
1.0%	7	4.21	no growth	no growth	no growth	no growth
2.0%	7	4.19	no growth	"	"	"

The table indicates that Sulphate of Iron is capable of bringing about an increase in the acidity of the medium sufficient to check the growth of the fungus effectively. The pH values were determined by the Quinhydrone Potentiometer method. A similar method has been attempted with use of Sulphur and other chemicals and the results are being noted.

It is also proposed to study the toxicity of the various chemicals with reference to other root diseases.

GENERAL.

Nettle Grub Fungus:—On some nettle grubs a fungus was obtained. It has been identified as a species of *Cordyceps*? The pupa within was completely infected with the mycelium of the fungus which was of pale red colour. On the cocoon root like structures were produced which bore club-shaped fructifications.

The fungus has been obtained in culture. There has been a profuse growth of the mycelium and conidiospores have been abundantly produced. In one of the culture tubes was obtained structures resembling the fructification; these were of yellowish to red colour.

One grub has been inoculated with the fungus and allowed to pupate within a sterilised soil.

Tea seeds:—Tea seeds sown on beds have often been found attacked by a species of *fusarium*, *penicillium* and such other fungi of a saprophytic nature. Even seeds that were not open had developed these moulds. This subject requires further study.

Witches-Broom disease:—In Ceylon and Nyasaland a disease of tea has been recorded and it has been called the Witches-Broom disease in Ceylon while in the latter country it has been termed "yellow leaf" disease. Both the diseases claim certain common characteristics while they differ in certain others. The diseased nature of the bushes is evidenced by the short internodes, leaves which are smaller in size, coarse and thick, and the bush generally appears abnormal.

No causal organism has been reported. In Nyasaland the effect is attributed to an insufficient sulphur content in the soil and plants that had been treated with sulphur are reported to have recovered from the diseased condition.

Tea Cider:—The organisms of significance here are a bacterium (*B. xylinum*) and a yeast (*Saccharomycoides ludwigii*).

Certain articles appearing in tea journals have indicated a growing interest in a beverage which could be obtained from of a sugared decoction of tea, by the addition of certain organisms collectively termed the "Tea fungus" or "Theeschimmel." The idea originated in Java, and has been taken up by Ceylon investigators. On recommendations given in these articles, a tea decoction, to which 10 per cent. sugar had been added was kept in a vessel covered by a cloth. In a few days a thin scum began to form. It was found to consist of certain bacterial cells and some cells resembling certain yeasts (*Torula*), and these organisms have been isolated.

On the arrival of a sample of "Theeschimmel" from Java fresh brews of both the locally produced strain and the Java culture were started. The Java culture was found to consist of an entirely different type of yeast cell (*Saccharomycoides ludwigii*). Successful results were, however, obtained from both the strains.

Some experiments were commenced to note the effect of changing the percentages of sugar. It was found that at greater concentrations of tea better results could be obtained. An entire absence of sugar resulted in no fermentation of the decoction taking place.

It has been determined further that the bacterium is of greater importance than the yeast in bringing about the desired fermentation. Cultures of the tea fungus have been maintained and specimens have been sent to planters with a note on the methods of preparation, etc.

Literature:—All the Mycological literature available has been indexed and brought up to date. Some articles appearing in Dutch journals have been translated.

M. K. SUBBA RAU,
Mycologist.

COFFEE SCIENTIFIC DEPARTMENT

Administration Report for 1932-1933.

I have the honour to present the Administration Report of the Coffee Scientific Officer for the year ending 31st March 1933, dealing with the work in progress in connection with coffee problems.

As in previous years, the work has been centred at the Mysore Government Coffee Experiment Station, Balehonnur, under the direction of Dr. L. C. Coleman. Work in co-operation with the Officers at the Station has been continued in connection with breeding, spraying and miscellaneous problems.

The Assistant, Mr. V. K. Subrahmanyam, has continued to work at the former Coffee Experiment Station at Sidapur, S. Coorg. His agreement was renewed in December for a further twelve months. At the end of February 1933, the Assistant was transferred to Balehonnur for the period of the Scientific Officer's home leave.

The report comprises, as usual, a short account of touring work, scientific investigations in progress, and general notes on coffee problems which have been raised during the year.

Touring.—Two visits were paid to S. Coorg during the year, one in June 1932, and the second in February 1933. Both of these visits were undertaken in connection with the supervision of the work of the Assistant. Opportunities were taken to meet and discuss questions with a number of Planters in Coorg on both occasions. On the second occasion arrangements were made for a small co-operative manuring trial in the coming year. Matters arising from these visits concern almost entirely the special problem for which the Assistant was primarily appointed and will be dealt with in the appropriate section of the report.

INVESTIGATIONS

Leaf Disease.—**Progress Report.**—The work on Leaf Disease has followed the lines indicated by the work carried out in 1931-32 and definite progress has been made in connection with study of the inheritance of resistance.

The results of the work in 1931-32 on spore germination, on resistance and susceptibility of different coffee strains to Leaf Disease, and on the existence of distinct strains of *Hemileia* indicated the absolute necessity of working with material grown in the laboratory under standardized conditions.

The first task during the year was the establishment of cultures which would be homogeneous and representative of the two strains discovered in the previous year.

This was carried out and several isolations were made from single disease pustules. These were maintained in the laboratory by periodic transference from one set of inoculated leaves to another fresh set.

Difficulties were mainly those of systematising the work to obtain steady supplies of spores of both strains and were inevitable in the early stages of the work. During the cold weather of December and January great difficulties were experienced in maintaining cultures and most of the isolations were lost. Fresh isolations were therefore necessary and up to the end of the year progress was seriously handicapped. New cultures were established during February and March and their strain determined. These will be utilized for testing work in the coming year.

The cultures isolated and tested in the early part of the year were utilized in testing the disease resistance of the number of coffee seedlings produced in the course of the Station's coffee breeding activities. The work has been slower than could be desired owing to the difficulties enumerated in the preceding paragraph, but enough has been done to indicate that the method of laboratory inoculation on detached leaves is likely to prove a very valuable weapon in tackling the problem of producing a disease resistant coffee.

The first results indicate that resistance is dominant to susceptibility and it is highly probable that the mode of inheritance follows comparatively simple Mendelian lines. It is too early to go into the details of the tests so far carried out as the tested seedlings are too few for sound deductions to be drawn.

From a practical point of view, it seems that it should be possible to establish coffee strains which will breed true for Leaf Disease resistance in a relatively short time. It remains to be seen whether other characters such as normal flowers, good set and regular fruit production and even sample can be readily combined with this resistance. Work is proceeding as rapidly as possible on these lines.

At the same time, studies have been commenced on the phenomena of penetration of the germ tube of the fungus into the leaves of both resistant and susceptible coffee strains. By inoculating leaves with spores and then stripping off pieces of the leaf epidermis, a rapid method of studying the preliminary stages of infection has been developed. These stages have been followed from the first swelling of the germ tube over the stoma to the establishment of the first haustoria, or feeding organs of the fungus in the leaf cells.

The results indicate that resistance does not depend on any inability of the fungus germ tubes to enter the leaf through the stomata. In resistant leaves this entrance takes place quite normally and the entering tube may proceed to the formation of haustoria. So far, studies have not revealed the later reactions of the resistant host but work on this problem is planned. The conclusions are that resistance and susceptibility depend on constitutional differences in the protoplasm of the hosts and not to any great degree on anatomical features. Similar work by Allen on wheat rust led to a similar conclusion.

Owing to the demands made on the *Hemileia* cultures by the testing of seedlings, little further work was possible on spore germination with spores grown under standardized conditions. The few experiments carried out show a considerable increase in regularity and percentage of germination, and confirm the conclusions on the effect of moisture and light noted in last year's report. It may be said that for regular results in spore germination studies, spores must be produced under standardized conditions and collected in such a way as to obtain only fully ripe spores. A short period of preservation after collection appears to give the best germination results.

One experiment on the effect of bright and dim light on the development of pustules on detached leaves showed that dim light caused a reduction in the vigour of spore production. This is of interest in view of experience with respect to the incidence of Leaf Disease and the use of shade.

Further work along all these lines is contemplated in the future, with emphasis naturally on the inheritance of resistance.

Root Diseases.—Progress Report.—Little further work has been carried out on this problem but the results of the inoculation experi-

ment started in November 1931 and reported in last year's report are of interest. This experiment was carried out with the fungus of Brown Root Disease, usually, called *Fomes lamaensis*. Pure cultures established on wood blocks were buried in contact with the tap root or lateral roots of a number of coffee plants planted in tubs. These plants were under somewhat unfavourable conditions and suffered very severely from Leaf Disease and both inoculated plants and controls were completely defoliated. It was noted that some plants were suckering after this defoliation, while others did not appear to be doing so. The plants were dug out in January 1933, about fourteen months after the experiment was started. Out of the four plants inoculated, two showed the typical signs of infection by Brown Root Disease, while two were free; the two control plants were also free. The two plants which showed successful infection were those in which the wood blocks had been placed in direct contact with the tap root, while the unaffected plants had the blocks placed only near a lateral. It was not possible to see whether the laterals in contact with the blocks had been destroyed by the disease. If they had, however, the typical symptoms were not found near the tap root, and the root system appeared otherwise healthy.

In the plants showing symptoms, the disease had not succeeded in ringing completely the tap root, and the upper part of the plant was still green under the bark.

It is true, conditions were somewhat unfavourable for the plants and the experiment requires repetition under more satisfactory conditions, but the results show that the rate of development of the disease is slow and they emphasize the necessity of including a ring of apparently healthy trees within an isolation trench when this method of limiting the disease is employed.

It is highly desirable that experiments along these lines should be continued with special reference to the effect of soil moisture and aeration on the rate of development of the disease. It is proposed to follow these lines in the future.

Studies on Spray Mixtures.—The leaf count method of studying the relative value of different adhesives and mixtures was followed in these studies as in previous years. The results have been dealt with in a bulletin on spraying and it is unnecessary to consider them in full detail in this report.

The results do not alter the conclusions arrived at from previous work. As far as the leaf counts are concerned, there are no marked differences in the effectiveness of the principal spray mixtures tried. A study of the percentage infection of the leaves suggest that the sprays may be divided into two groups, one including casein, resin soda and linseed Bordeaux, being slightly less infected than the other which includes alum Bordeaux and resin soda Burgundy. Fish oil resin soap Burgundy occupies a doubtful intermediate position.

The sprays applied without any adhesive were as effective during 1932 as those with adhesives, the Bordeaux giving the lower amount of leaf, with, however, a much lower percentage of disease. These results may be regarded as due to the less severity of the disease in the experimental plots in 1932 than in 1931, when the use of adhesive had a significant effect in improving the protection afforded by Bordeaux.

The results for the sprays now being studied are given in Tables 1 and 2.

TABLE I,
Leaf Count Data for Different Types of Sprays.

	1930	1931	1932
Linseed oil Bordeaux 10 ozs.	6'35±'21	6'28±'23	5'93±'21
Alum Bordeaux	5'38±'24	6'00±'28	6'63±'25
Casein Bordeaux	5'90±'18	6'19±'24	5'84±'17
Resin soda Bordeaux ...	5'50±'16	5'94±'20	5'94±'21
Fish oil resin soap Burgundy.	5'57±'23	5'66±'26	5'99±'24
Resin soda Burgundy ...	4'87±'18	5'97±'21	6'06±'22
No adhesive Bordeaux ...	...	5'40±'19	5'60±'17
No adhesive Burgundy ...	...	...	6'32±'21
Controls no Spray	2'40±'13	3'13±'17	4'27±'23

The spray mixtures which have been tested for three years are arranged in descending order as indicated by the mean value of the three observations carried out for each treatment.

TABLE II,
Percentage Infection Data for Different Types of Sprays.

	1930	1931	1932
	Per cent	Per cent	Per cent
Linseed oil Bordeaux 10 ozs.	29'3	26'8	14'1
Alum Bordeaux	40'5	51'3	24'7
Casein Bordeaux	26'2	26'1	10'4
Resin soda Bordeaux ...	32'1	30'3	14'1
Fish oil resin soap Burgundy.	30'7	32'6	22'3
Resin soda Burgundy ...	34'9	42'7	21'7
No adhesive Bordeaux ...	...	42'2	9'5
No adhesive Burgundy ...	...	...	19'6
Controls no Spray	49'4	72'5	75'5

Time and Strength of Spray Studies.—These results obtained by methods similar to those employed in the study of different types of spray have also been dealt with in the bulletin on spraying referred to above. Observations were carried out in September 1932 and February 1933 as in the previous years, and the results confirm the conclusions reached in previous reports. The data for 1932-33 are summarized in Table 3. For detailed discussion of these results, reference should be made to the bulletin on spraying.

TABLE III.
Leaf Count Data and Percentage Infection. Time and
Strength of Spray.

	September 1932		February 1933	
	Leaf Count	Per cent	Leaf Count	Per cent
Control Plot 1... ..	3.25	69.6	2.74	21.5
1 per cent May and Sept. Spray... ..	6.49	51.0	3.21	22.8
Control 2... ..	4.22	73.4	2.43	20.7
1 per cent May Spray only... ..	6.61	19.2	2.73	40.0
Control 3... ..	4.66	67.1	2.52	18.1
0.5 per cent May and Sept. Spray... ..	6.61	45.7	3.80	32.6
Control 4... ..	5.31	58.7	2.50	26.0
0.5 per cent May Spray only... ..	6.96	25.1	2.25	38.1
Control 5... ..	5.48	62.5	2.36	24.4
1 per cent Sept. Spray only... ..	4.18	79.8	3.22	24.8
Control 6... ..	4.63	71.3	2.13	31.0
0.5 per cent Sept. only... ..	4.03	73.5	2.87	33.0
Control 7... ..	6.78	71.8	2.66	29.9

It must be noted that the variation in the control plots throughout the series is due in part to the continued effect of differential treatments in the first year of the experiment (1930), though doubtless variation in soil and shade conditions over the large area covered by the experiment also plays a part.

It may be considered strange that the amount of leaf carried in February by the sprayed plots is but little greater than that carried by the control plots. This is due to the fact that the observations make no distinction between old mature leaf and newly developed leaf. In the case of the controls a large proportion of the leaf counted in February is new leaf formed since September, while in the case of the sprayed plots this proportion is considerably smaller. The larger leaf "flush" in the intervening period between the two counts in the case of the unsprayed plots is a matter of importance as the utilization of food materials during this period for leaf production means a reduction in the supply

of food for blossom bud formation. Hence, the data for leaf amount in February do not reveal completely the differences due to spraying.

Observations on shoot development in the period, September to February, also reveal a greater production of shoots in the unsprayed areas involving further utilization of materials which in the sprayed areas go to form flower bud.

FLOWER AND FRUIT STUDIES

Crop Losses during Development.—Observations of the same type as those reported last year were carried out in the 0.5 per cent. twice sprayed plot in the Time and Strength of spray experiment. They included regular observations of loss of young fruit and the development of leaf and shoot on 100 cropping branches.

In last year's report, the loss was divided into four groups and of these, the fourth group covering the period from the 11th week of development to the harvest was much the smallest. This year's results confirm those of 1931, but the separation of the first three groups of losses is not as easy as in the previous year as there was considerable overlapping, and from the data available it was not possible to sort them out with any clarity.

The final percentage of fruit picked was 41.4 per cent. of the original bud, a figure only slightly different from last year. This was particularly striking in view of the considerable difference in the amount of bud produced, and in the climatic conditions during the early stages of fruit development. Once again, it is shown that losses of developing fruit occur almost entirely between the blossom showers and the monsoon, provided that losses due to Black Rot and Die Back are eliminated by spraying. An analysis of the data for losses during development is given in Table 4 together with last year's figures.

TABLE IV.

Percentage Loss of Crop during Development.

		1931	1932	
		Per cent	Per cent	
Original Flower Bud ...	9031	...	5379	...
Loss 1. First four weeks.	1850	20.5	1411	26.2
Loss 2. Unswollen fruit				
at 5th week ...	989	11.6	599	11.1
Loss 3. 5th to 11th weeks.	2414	26.7	902	16.8
Loss 4. 11th week to				
harvest ...	381	4.2	241	4.5
Fruit picked ...	3397	37.6	2226	41.4

The chief difference from last year is a slightly higher loss in the first four weeks, and a somewhat lower loss between the 5th and 11th week. It is impossible to attempt any correlation with climate on such meagre data, but the rainfall conditions from March to June for the two years are given in Table 5.

TABLE V.
Amount of Rainfall in Inches.

			March		April		May		June	
1931	...	...	1'50	1	7 02	11	3 11	9	10'44	23
1932	...	...	03	1	4'29	13	9 01	17	8'37	27

The blossom in 1932 was ten days later than in 1931; in the latter, the blossom shower of 1.50" fell on March 24th and the flowers opened on April 1st. Heavy rain fell on April 4th, 5th and 6th and there were showers at fairly frequent intervals until the beginning of May after which there were three weeks without rain. In 1932, blossom showers of .76", .46" and .04" fell on April 4th, 5th and 6th and the flowers opened on the 12th and 13th. There were small showers of 9 and 8 cents on these two days, followed by a dry week, after which rain fell at frequent intervals. The latter part of May was characterized by well marked S. W. Monsoon condition. June was a month of light rainfall, but there was no drought.

It is impossible to say what amount of variation there is in percentage set in different districts, but that there is a considerable variation seems highly probable. However, for a fruit crop, a set of 40 per cent. or thereabouts must be considered satisfactory.

Working on the basis the greatest losses occur in the period prior to the commencement of the monsoon, a series of observations were made on plots receiving different manures to see if it was possible to establish any differences in the setting due to different treatments. The plots selected for study were those receiving nitrogen alone as $3\frac{1}{2}$ cwt. of groundnut cake, phosphoric acid alone as 1 cwt. of concentrated superphosphate and potash alone as 1 cwt. of a mixture of muriate and sulphate. A further series of plots which had received no manure for seven years were also studied.

There were three plots studied for each treatment, and at each observation, 25 typical shoots similar in every respect to those utilized in the more detailed observations noted above were counted in each plot. Observations were made just before blossom, at the seventh week after blossom and just prior to the harvest. No attempt was made to keep the same branches under observation throughout the season as the extra work entailed could not be spared at the times of observation. The evidence from the more detailed counts shows that any 25 branches are likely to give sufficiently similar figures for the purposes of these observations.

The amount of bud on 25 branches varied widely in different plots receiving the same treatments. On taking the total number of buds counted for each treatment, *i.e.*, the sum of observations in each set of three plots, quite a remarkable agreement is shown for two of the treatments and the check plots. The results are tabulated in Table 6.

TABLE VI.
Counts of Buds and Fruits for different Manurial Treatment.

	Nitrogen	Phosphoric acid	Potash	Control
Buds at Blossom Time.	4497	3995	3961	3983
Young fruit, 7 weeks later ...	2593	2634	2370	2390
Fruit at maturity ...	1911	1703	1606	1841

The main features of interest are the considerably higher amount of bud in the nitrogen series when compared with the other three, the notably smaller failure in the phosphoric acid series in the first seven weeks and the larger failure later on in the same series.

Calculating the percentage set for each plot and estimating the standard error for each treatment, the following figures are obtained in Table 7.

TABLE VII

	Nitrogen	Phos. acid	Potash	Control
	per cent	per cent	per cent	per cent
Percentage set out in first 7 weeks ...	58.3 ± 3.7	66.2 ± 3.9	60.2 ± 4.1	61.4 ± 5.7
Final percentage set ...	43.0 ± 2.6	42.3 ± 2.6	41.2 ± 3.4	48.0 ± 5.9

The results do not reveal any definite difference in setting due to individual manuring treatments and further results would be required before any definite conclusions could be drawn. Two points in particular require following up, the higher bud production in the nitrogen manured plots and the slightly lower loss in the early stages in the phosphoric acid manured plots.

Examination of the Crop picked.—The crop picked in the main set of observations was examined and classified as last year. The results are tabulated for comparison in Table 8.

TABLE VIII

Analysis of Fruit Picked in Crop Development Observations.

	1931	1932
Total Fruit	3397	2226
Per cent Peaberry	13.3 per cent	21.5 per cent
.. Three Bean Cherries. 1.0 ..	1.0 ..	1.0 ..
.. Total Beans	6376	4001
.. Empty Beans	2.0 per cent	2.3 per cent
.. Black Beans	11.9 ..	0.3 ..

Two very striking features emerge: the higher amount of peaberry and the much lower amount of Black Bean in 1932. No very satisfactory explanation can be provided for either of these differences on the data available at present. The question of Black Bean will be considered below.

Black Bean.—The defect known as Black Bean was studied during 1931-32, when it was concluded that it was probably due to physiological disturbances connected with supply of nutritive material under certain climatic conditions as yet undetermined. Attempts to study the disease in 1932 were largely handicapped by the scarcity of material indicating the absence of the predisposing conditions. However, a little information was obtained by the examination of samples of young fruit at monthly intervals from June to August. The first indication of any Black Bean was found in the middle of August when one or two fruits in a sample of 300 showed the beginnings of blackening of the bean tissue. This was associated with a fundamental change in the nature of the "meat" of the bean.

It was found that at this stage, the bean showed the transition from the green, rather watery stage to the ivory white stage which eventually forms the hard bean in the ripe fruit. This transition appeared as a form of replacement rather than one of transformation of the existing tissue, since the white tissue, which at this stage is soft, was quite separate from the green tissue and could be removed as a whole with a needle. Sections of the green tissue showed thin-walled cells with sparse contents and the cells at the edge in contact with the soft white tissue appeared to be collapsed. The green tissue cells contained no apparent storage material but the white tissue was packed with globules giving fat reactions. At the limiting layer between the two tissues, there seemed to be a marked concentration of protein materials. In the one or two beans showing the beginnings of what looked like Black Bean, the blackening was at this limiting layer.

It seems that the development of Black Bean is bound up with a fundamental change in the tissues of the bean which occurs about August.

On the data so far available, little more can be said but the evidence obtained during this year supports strongly the conclusions reached last year. This subject will be studied further in future years, especially with reference to the change occurring in the bean during development, and their relation to climatic and nutritional conditions. Results from work of this description are bound to be slow.

Brown Spot.—In December, attention was called to another bean disease characterized by more or less limited brown and sunken spots on the bean which were visible through the parchment when it was wet. There was no sign of disease or penetration on the parchment and, in some cases where this bean spot has been found in cherries under examination, no visible indications of damage on the exterior of the fruit. Fungus hyphae were found in the attacked areas and several organisms were isolated. Inoculations were started by pricking spore suspensions of the suspected organisms through the parchment of surface sterilized beans. In the case of one bean in a series inoculated with a species of *Fusarium*, a black spot developed at the point of inoculation, and this fungus has been kept in culture for further work next season. The spot developed artificially was not quite like those found in the diseased beans sent in so that it cannot be said that the inoculation gave any proof of the pathogenic nature of the fungus used. If further work proves this, the problem of the mode of infection will require investigation.

Mealy Bug, Cockchafer and Nematodes.—The work carried out in Coorg on the loss of plants attributed to Mealy Bug and Cockchafer is the subject of a separate report. This work has been carried out by the Assistant, appointed in December 1931, and the results of his work have amply justified the appointment.

It has been found that the greater part of the trouble in South Coorg is to be attributed to the activities of a species of Nematode, a minute worm, which bores into the root tissues and destroys them. This worm, known as *Anguillulina pratensis* (*Tylenchus coffeae*), has been known as a serious pest of coffee in the Dutch East Indies for many years, but this is the first record of it from India. Further details on the work so far carried out will be found in the separate report referred to above.

General Remarks.—The year on the whole in Mysore showed few exceptional features, though blossom showers were not entirely favourable in some areas and were bad in Coorg. The rains in May were very heavy, monsoonlike in character, but they did not seem to be the cause of any considerable damage. It was a bad year for Black Rot and this disease was noticeable up to a very late date in the year, the N. E. Monsoon being heavy and continuous.

The year was noticeably a bad borer year, doubtless as a consequence of the dry October in 1931. It is likely that 1933 will show a much lesser severity of this pest.

The Black Bean trouble which was so serious in 1931, was almost completely absent in 1932, and in Mysore, crops turned out well.

Coffee looked well in the early months of 1933 but blossom showers fell very early and were in a number of cases rather small. Blossoming was irregular and some failure was evident.

Other Diseases.—Apart from the bean spot and the eelworm diseases mentioned elsewhere no serious diseases not previously reported have

been noticed. Two minor diseases may be mentioned, though neither appear to be of any practical importance. Specimens were received of leaves and fruit affected with large brown discoloured blotches from which a species of *Colletotrichum* was isolated, culturally similar to the species isolated from Die Back. This disease is not new, having been reported by Butler in "Fungi and Disease in Plants" and is of some practical importance in East Africa. A new fungus was found on leaves showing symptoms similar in some respects to Black Rot, in an area where Black Rot was present. Closer examination revealed a strong resemblance to Thread Blight, a disease reported from Java. Specimens were sent to Mr. M. J. Narasimhan, Mycologist, Mysore Agricultural Department, who has been studying this type of disease.

Pests.—Stem Borer (*Xylotrechus quadripes*) was much in evidence during the year. The only observation of interest made during the year was the considerable part that spraying with Bordeaux plays in reducing borer losses. The effect is, of course, indirect, through the increased leaf cover provided during September and October. The results in parallel plots at the Experiment Station were most marked and were discussed in the spraying bulletin.

Bugs.—In addition to the usual scale insects, mention must be made of the identification of one Mealy Bug found during the work in South Coorg, which while it appears to be of no great importance in South India, is identical with the very serious Mealy Bug found in East Africa. This is *Pseudococcus lilacinus* Ckll found on shoots of both *Erythrina* and coffee. There have been three Mealy Bug species found associated with coffee up-to-date.

Pseudococcus citri; Riss.—On roots.

Pseudococcus virgatus Ckll.—On leaves and shoots.

Pseudococcus stilacinus Ckll.—On leaves and shoots.

The importance of the first is still somewhat uncertain though probably under some conditions it is a cause of loss of vigour of young plants, opening the way to more serious root enemies. The second has only once, in Coorg in 1929, given cause for alarm on a small area, while the third, so far, has no practical importance. The two latter must be regarded as potentially serious pests and any cases of sudden outbreaks of Mealy Bug on leaves or shoots should be promptly dealt with by a contact spray such as Fish Oil Resin Soap, in order to limit any tendency to spread.

Eelworms.—The eelworm attacking coffee has been dealt with elsewhere. In addition to this species, another species causing root galls has been found in South Coorg on *Erythrina*. This root gall eelworm has previously been reported from Ceylon on the same host and from both Ceylon and South India on tea.

Correspondence and Publications.—Correspondence has shown further increase, over 300 enquiries having been dealt with during the year. As in previous years these have been concerned mainly with spraying and manuring.

A report on "The relation of Nematode worms to the Cockchafer and Mealy Bug Problem in South Coorg" was prepared in association with the Assistant Scientific Officer. A bulletin on the spraying of coffee was prepared in co-operation with Mr. M. J. Narasimhan, Mycologist and Mr. K. H. Sreenivasan, Assistant Director of Agriculture, Mysore Department of Agriculture.

Three articles, "Recent Work on Coffee Leaf Disease," "Black Bean or 'Jeloo' in Coffee" and "Spraying in relation to Coffee Crop Production" were published in the "Planters' Chronicle." An article on the control of coffee Leaf Disease was contributed to the Planting Supplement of the "Madras Mail."

Acknowledgements.—I have to express my very great appreciation for the continued cordial advice and assistance which has been given me at all times by Dr. Coleman and his staff both at the Coffee Experimental Station and at Bangalore.

My thanks are also due to the many planters who have from time to time assisted me in various phases of the work here recorded.

The work of the Assistant, Mr. V. K. Subrahmanyam has been excellent under somewhat difficult conditions. Substantial progress in studying the problem in South Coorg has been made through his efforts and though as yet this progress has not reached the stage of practical control, there could be no hope of any control without the more accurate diagnosis of the problem now available.

W. WILSON MAYNE.

REPORT ON THE SIDAPUR COFFEE EXPERIMENTAL STATION.

Season 1932-1933.

The usual Estate works have been carried out on the Experimental Station during the past year and the Coffee now is both looking very healthy and bearing a good crop. The whole area was pruned in March of this year.

In 1932 three manuring experiments were commenced, the plots treated being as under:—

Plot No. 17.	1 acre.	General Coffee Mixture.
Plot No. 16.	1 acre.	Do. plus two Cwts. sulphate of Ammonia.
Plot No. 15.	1 acre.	Do. plus 2 Cwts. Muriate of Potash.
Plot No. 14.	1 acre.	This experiment is being commenced in the current year. The plot will receive Gen. Coffee Mixture plus 4 cwts. Bone Meal.

An enumeration and classification of the bushes in these plots was carried out by the Assistant Coffee Scientific Officer during the year.

The object of these experiments is to endeavour to find out the dominant manure for Coffee, so that in seasons of poor prices and crops one might be able to reduce expenditure by applying a single manure.

It is hoped also to obtain information about the eventual effect of these different manures on both the quality of the bean, the health of the coffee bushes and any resulting resistance to the attack both of Borer and of Leaf Disease.

The general Coffee Manure applied will give 30 lbs. of Nitrogen, 45 lbs. of Phosphoric Acid and 60 lbs. of Potash to the acre.

It is probable that the experiment would be still more instructive if the application of a 'complete' manure was either reduced or omitted. Unfortunately the working of the Sidapur Experimental Station in the absence of a suitable grant for its upkeep, has to be considered commercially as well as experimentally.

Similar difficulties arise in the tabulation of results. It is possible within Estate practice to record the number of borer bushes removed, the number of supplies planted and the crop picked from each square, but for any further particulars a resident Scientific Officer is required.

In Plot No. 2 a spraying experiment has been in progress for the last two years. One third of this plot is sprayed before the monsoon, one third after the monsoon, and one third is sprayed twice, both before and after.

In Plot No. 18 the effect of an application of Liquid fuel and Neem Oil, in the proportion of 4 gallons of liquid fuel to one seer of Neem oil was tried as a preventive against Borer attack. The mixture was applied between 23rd and 30th September 1932, under the supervision of the Assistant Scientific Officer but it was a failure as this mixture burned a great many of the stems. These were rubbed with coir before the oil was applied to remove the rough bark. The only information gained was regarding cost which, in average coffee would be about 36 coolies and 9 gallons of oil to the acre.

Different preventatives similarly applied will be tried in the coming year. Spraying stems has been tried and found very wasteful of the mixture and not very successful.

Nematode and other root-pest field experiments have been laid out on various groups of the C. C. Estates by the Managements and the Assistant Scientific Officer. All results and observations will be recorded as far as possible, but these like many previous experiments are in danger of being lost sight of without a qualified observer resident at the Station.

The present Laboratory at the Station is being altered after the monsoon, on lines suggested by Mr. Mayne, so that it may be better adapted to Scientific work, and the U. P. A. S. I. have agreed to allow a grant not exceeding Rs. 400 for the carting out of these alterations.

(Signed) IVOR BULL,
Manager.

RUBBER SCIENTIFIC DEPARTMENT

Administration Report for 1932-1933.

I took over charge of the Station as Visiting Supervisor on the departure of Mr. Taylor on 15th September, 1932.

Staff.—During the year were:—

Laboratory Assistant	..	Mr. V. T. Abraham.
Second Laboratory Assistant	..	Mr. K. A. Varughese.
Field Assistant	..	Mr. A. Krishna Pillai.

Mr. Abraham's services were dispensed with as a measure of economy in August 1932.

Mr. Krishna Pillai was in charge of all work at the Station.

Mr. Varughese continued to be employed almost entirely on weighing the rubber and calculating the yields.

The above two assistants were still in our service at the end of our financial year, 31st March, 1933, and have given me every satisfaction in their work.

Buildings.—One staff house will require to have its tiles removed for the renewal of its roof timber which has been damaged by white ants when Funds are available, otherwise the condition of the buildings is reasonable. The Northern side of the laboratory was having its foundations rapidly washed out by rain drip from the roof. Tappers were put on in the afternoon to build a side drain in stone to stop this which it has done. The buildings have been swept and aired regularly and I have had the roof timber oiled as a protective measure.

The Bungalow has been kept aired and swept and is in much the same condition as previously reported on.

Lighting Plant.—The batteries were cleared of deposit, which had not previously been done, with the result that it had reached a level dangerously near the plates. They were then topped with acid of 1.200 S.P.G. These batteries will require complete fresh acid throughout before being put into commission again. The plates are in very fair condition.

A fault in the switch board was located and since then the batteries have stood up to their charge well. They are receiving a short charge once a month to freshen them up.

The pumping plant, which was located in a shed outside the Station, has been brought in along with the light piping and stored after heavily greasing.

FIELD WORK

Before Mr. Taylor went he left a programme of suggested work for tapping, soil evaporation experiment, and the budding of certain clones which had proved promising, in the form of a multiplication nursery. These suggestions were all carried out.

Soil Evaporation Experiment.—This was carried out in February and the result circulated to District representatives of the R.A.C.

The multiplication nursery consisted of the following clones:—

Clone	U	V	AF	P	N
Stocks budded	20	20	20	20	20
Successes	20	19	20	18	19

Three year old trees left in the nursery for this purpose were used and two buds, one on each side, were put on at a height of about 2½ feet from the ground.

The work of supplying the 1931 clearing vacancies, thirty-two in number, was left until too late in 1932 with the result that they failed to come through this season's severe drought. They were supplied again early this season.

Girth measurement marks and tree numbers were renewed in tar during February.

Tapping.—Mr. Taylor's notes on tapping read as follows.—“All cuts are at present on the top panel. When changing over in April this year on the trees brought into tapping a year ago the height of cut was maintained. This gives evidence of ability to yield on both sides but may slightly depress the yield as compared with Dutch clones of the same age. I suggest therefore that in October the cuts on these trees be lowered to $\frac{1}{2}$ metre without again changing over, at the end of March 1933 two averages will be available each for six months.

On these trees which were brought into tapping only on November 1st, 1931, the new cut should be opened on November 1st, this year on the other side at a height of $\frac{1}{2}$ metre only.

In each case the new cut should be shaved for three tappings before the yield recording is started. This means that two cuts, the old and the new will be tapped for the last three tappings in September and October respectively.” These instructions were given effect to.

Tapping was good throughout the season, depth being uniformly even with a marked absence of wounding. Bark consumption for the second six months averaged $2\frac{1}{2}$ inches.

An extra 288 trees were brought into tapping at the end of October 1932 making a total in tapping of 555 trees. Yield records have all been kept up and these have been circulated from time to time as they were available to District Associations through their R.A.C. representatives.

Weeding has been confined to the removal of obnoxious weeds and digging out, of any jungle cheddies. Footpaths and roads have been cleaned, also the surroundings of buildings.

Pests and Diseases.—Spraying was done before the monsoon of 1932 with satisfactory result. Pink Diseases (*Corticium Salmonicolor*) was active in October-December but received prompt attention when observed. Rats gave some trouble in the nursery. Their holes were dug up and a number of them killed. Fresh holes were then dug up for the next month as observed. Since then, October, there has been no recurrence of this trouble.

RAINFALL WAS:—		1931-1932.	1932-1933.
April	..	10.67 ins.	9.61 ins.
May	..	9.60 ..	30.51 ..
June	..	28.75 ..	18.61 ..
July	..	30.82 ..	32.21 ..
August	..	51.13 ..	21.71 ..
September	..	10.02 ..	15.55 ..
October	..	12.73 ..	28.31 ..
November	..	12.04 ..	15.17 ..
December	..	10.34 ..	2.96 ..
January	..	Nil	Nil
February	..	3.94 ..	1.49 ..
March	..	5.88 ..	5.04 ..
		185.92 ..	181.17 ..

Extra Land.—Negotiations for this were continued and two interviews held with the District Forest Officer. Boundaries were eventually settled and just as it looked as if this much prolonged question was on the point of being settled we received notice from Government that somebody had taken an injunction against them claiming these lands and until this was settled nothing further could be done.

General.—I have visited the Station at least twice monthly, and bi-monthly reports were issued to the R.A.C. on these visits.

The new season's foliage on the Station is satisfactory and quite up to average. The Station is looking well and is free from disease.

Tapping was stopped in April by order from the Executive Committee and spouts and shells were all collected, cleaned thoroughly and stored. Cuts were given a protective dressing.

The list of Chemicals was gone through and all weighed and measured and an approximate valuation made. After which all bottles were sealed up with Paraffin wax as protective measure.

A revised budget was prepared for us for the second half of the year. This was worked to and we were able to show a small saving under most headings.

Mundakayam,
26th June, 1933.

(Sd.) H. B. MACPHERSON,
Supervisor.

ACCOUNTS 1932-33.

Depreciation on Investments, ...	91015 3	Nilgiri Wynaad P. A. ...	9,296 15 3
" " Memorial Tablet ...	335 8 0	Shevaroy P. A. ...	1,937 10 9
" " Passage Money Fund ...	646 8 0	S. Travancore P. A. ...	5,110 5 0
" " European Provident Fund ...	2,066 0 0	West Coast P. A. ...	259 1 0
" " Contributions ...	401 12 0	Wynaad P. A. ...	6,199 5 10
" " Indian Provident Fund Contributions ...	6,000 0 0		1,03,113 6 10
" " Mr. H. Waddington's Pension ...	250 0 0		
" " Contribution to Employers' Federation of Southern India ...	42,479 14 2	By Interest	10,422 7 5
" " Labour Department Grant ...	60,000 0 0	" Sundry Receipts	1,797 9 4
" " Political Department Contribution ...	12,000 0 0	" Planters' Chronicle as per separate Statement ...	629 13 6
" " Excess of Income over Expenditure transferred to Head Office Department Fund...	1,14,479 14 2		12,849 14 3
	1,483 6 11		
Total Rs. ...	1,15,963 5 1	Total Rs. ...	1,15,963 5 1
LABOUR DEPARTMENT—		By subscriptions—	
To Director's Office Expenses ...	13,798 10 1	Anamalai P. A. ...	39,569 11 4
" " Coimbatore Division ...	36,054 13 10	C. Travancore ...	32,484 14 3
" " Mangalore Division ...	30,813 5 1	Coorg P. A. ...	9,784 15 6
" " Mysore Division ...	30,487 6 10		
Carried over...	1,11,154 3 10	Carried over...	81,359 9 1

Entomologist Salary	1,687	8	0	By Sundry Receipts—	642	3	4	
" Mycologist Salary	1,587	8	0	Sale of Green Leaf	261	6	6	903 9 10
" Indian Staff	1,524	0	0	Sale of Bulletins ..				
" Allowances, Personal and Motor	1,477	0	0	" Excess of Expenditure over Income transferred to Tea Scientific Department Fund ..				37,584 14 4
" European Provident Fund Contributions	2,290	8	0					
" Indian Provident Fund Contributions	270	0	0					
" Passage Money Fund	813	5	4					
" Share of Head Office Expenses	850	0	0					
" Stationery, Postages and Telegrams	459	8	0					
" Bulletins, Library, etc.	753	12	8					
" Laboratory Work	2,601	10	6					
" Field Works and Tools	4,152	2	4					
" Upkeep—Buildings and Lands	1,122	15	6					
" Travelling and Transport	2,262	6	0					
" Assessments and Rents	254	15	6					
" Lighting and Plant	1,003	5	3					
" Medical Expenses and Subscriptions	256	8	7					
" Insurance	267	14	0					
" Incidents	53	14	6					
" Depreciation	6,030	0	0					
" Meetings	232	10	0					
" Contribution to I. T. A. Calcutta	2,500	0	0					
Total Rs.	55,456	8	2	Total Rs.	55,456	8	2	

" Incidentals	34 0 3
" Periodicals	27 15 2
" Building Repairs	64 7 10
Laboratory Expenses	855 10 0
Total Rs.	15,057 3 1
RUBBER SCIENTIFIC DEPARTMENT—	
To Scientific Officer's Salary	2,522 8 0
Indian Staff Salary	1,112 6 0
Allowances	82 8 0
Provident Fund—Indian	44 1 0
Share of Head Office Expen- diture	227 1 3
" Stationery, Postage and Print- ing	62 3 3
" Library and Periodicals	3 8 0
" Laboratory Works	52 6 7
" Field Experiments	533 14 0
" Upland Buildings and Lands	33 13 2
" Motor Mileage	178 15 9
" Upland—Water Supply and Lights	144 13 6
" Insurance and Assessments	90 11 0
" Incidentals	42 15 9
" Depreciation	2,640 0 0
Total Rs.	7,841 14 0
By Rubber Growers' Associ- ation Contribution	1,970 5 2
" Share of Madras Govern- ment Contribution	4,592 0 0
" Excess of Expenditure over Income transferred to Rubber Scientific Department	1,279 8 10
Total Rs.	7,841 14 0

(INCORPORATED)

Balance Sheet as at 31st March, 1933.

[illegible]

[illegible]

Balance Sheet as at 31st March, 1933.—(continued.)

LIABILITIES.	Rs.		Rs.		ASSETS.	Rs.		Rs.	
	A.	P.	A.	P.		A.	P.	A.	P.
Add Amount transferred from Office Reserve ...	1,440	13 10			At Divisions, Considered Good	2,188	3 10		
Less Excess of Expenditure over Income for the year ...	4,406	3 1			'Planters' Chronicle' Considered Good ...	530	8 8	11,474	5 8
RUBBER SCIENTIFIC DEPARTMENT					SPORTS FUND.—				
FUND.—					Fixed Deposit with the Imperial Bank of India.			1,247	12 8
As per last Balance Sheet ...	4,725	1 6			INVESTMENTS.—				
Less Amount with- drawn on behalf of Head Office 1,578 14 0					Rs. 100,000/- 6½% 1935	1,00,000	0 0		
„ Excess of Ex- penditure over In- come for the year 1,279 8 10					Treasury Bonds 1940-49	50,795	4 0		
	2,858	6 10			Loan ...	53,268	8 10		
ADVANCE PAYMENTS.—					Loan ...	502	8 0		
Unexpired Subscriptions— U.P.A.S.I. Buying Agency ...	1,475	0 0			Post Office Cash Certifi- cates ...			2,04,566	4 10
Unexpired Subscriptions and Advance Payments of Advertisers—'Planters' Chronicle' ...	4,194	12 8			(Approximate Market Value as at 31st March 1933 Rs. 2,19,138-0-0)				
					INTEREST ACCRUED ON IN- VESTMENTS.			2,639	0 0
					CASH AND OTHER BALANCES, With Imperial Bank of				
						5,669	12 8		

LIABILITIES.—					
<i>Labour Department.</i> —					
Audit Fee	2,400	0	0		69,093 10 10
Estate Advance Deposits at Divisions	85,340	15	1		2,392 1 7
Sundry Creditors	1,927	11	2		
Suspense Account	583	5	10		950 0 0
<i>Planters' Chronicle.</i> —					
Due by U. P. A. S. I. on Current Account			90,252	0	1
<i>Head Office.</i> —					
Audit Fee	500	0	0	745	15 3
Sundry Creditors	9	0	0		
Planting Directory 1932 Account	174	4	10		
			683	4	10
Total			5,50,880	4	9
					Rs.
India, Current Account at Madras and Branches. With Bank of Mysore Ltd. on Current Account					69,093 10 10
With Bank of Mysore Ltd. on Fixed Deposit Account					2,392 1 7
With Co-operative Banking Union Ltd., Srivilliputtur					950 0 0
With Post Office Savings Bank, Salem.					6,145 15 6
Cash and Stamps at Divisions and Agencies					100 0 0
Cash at Head Office					37,693 7 4
					104 8 9
					1,16,479 12 0
					5,50,880 4 9

MAADRAS, 30th June 1933.
Report of the Auditors to the Members of the United Planters' Association of Southern India—(Incorporated)
 We have audited the Balance Sheet of the UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA (INCORPORATED) as at 31st March 1933 and above set forth, and have obtained all the information and explanations we have required.

In our opinion such Balance Sheet is drawn up in conformity with the Law and exhibits a true and correct view of the state of the Association's affairs according to the best of our information and the explanations given to us and as shown by the books of the Association and the Returns from the Divisions.

FRASER & ROSS,
 Chartered Accountants.
 Registered Accountants.

C. H. BROCK,
 Secretary, U. P. A. S. I.
 K. FOWKE,
 Chairman.

BUDGET 1933-34.

THE UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA.

(INCORPORATED.)

BUDGET, 1933-34.

(As Amended at General Committee Meeting on 29th March, 1933.)

EXPENDITURE.	Rs.	Rs.	INCOME.	Rs.	Rs.
HEAD OFFICE—					
Secretary	Subscriptions from Members	...	3,000
Asst. Secretary	...	11,100	Tea 124,226 acres at 0-7-6	...	58,231
Less share of "Chronicle" etc.	...	8,400	Coffee 45,938 acres at 0-5-6	...	15,791
Office Establishment	...	6,843	Rubber 27,532 acres at 0-4-6	...	7,743
Less share of "Chronicle" etc.	...	2,214	From Rubber Reserve Fund	...	1,543
Rents	...	4,629	Minor Products 5,486 acres at 0-4-6	...	86,308
Office:—	...	5,400	Interest, 26% of total receipts	...	1,950
Postages & Telegrams	...	500	Sundry receipts	...	1,259
Printing & Stationery	...	850	Balance brought forward from 31-3-1933	...	1,483
Telephone & Fans	...	450			
Periodicals & Library	...	180			
Bank Charges	...	80			
Incidentals	...	411			
General:—	...	3,000			
Meetings	...	500			
Audit fees	...	370			
Insurance & Depreciation	...				

THE UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA.
(INCORPORATED.)

BUDGET, 1933-34.—(contd.)

EXPENDITURE.	Rs.	INCOME.	Rs.
TEA SCIENTIFIC DEPARTMENT—			
Staff and Allowances	30,935	Tea Cess—124,226 acres at 5 as.	38,820
General Expenditure	13,036	Sundry Receipts	552
Depreciation	6,020	Share of Madras Govt. Grant at 73 %	20,440
Passage Money Fund	1,300		
Provident Funds	2,709		
Excess of Income over Expenditure	54,000		
	5,812		
Total	59,812	Total	59,812
COFFEES SCIENTIFIC DEPARTMENT—			
Staff and Allowances	12,440	Coffee Cess 29,462 acres at 2 as.	3,682
General Expenditure	1,037	Share of Madras Govt. Grant at 27 %	7,560
Passage Money Fund	1,120	Coorg Government Grant	2,350
Provident Funds	1,022	Balance to be taken from Coffee Reserve	1,027
Total	14,619	Total	14,619

RUBBER SCIENTIFIC DEPARTMENT—

Staff and Allowances	780	Balance Brought Forward from 31-3-1933.	3,445
General Expenditure	470	Balance to be drawn from Rubber Reserve.	455
Depreciation	2,650		
Total	3,900	Total	3,900

INTEREST ACCOUNT—

Head Office Income and Expenditure	1,950	Estimated interest on Accumulated Funds.	7,500
Account 26%			
Labour Department Income and Expenditure	750		
A/C 10%	2,400		
Tea Reserve 32%	1,650		
Coffee Reserve 22%	1,750		
Rubber Reserve 10%			
Total	7,500	Total	7,500

Madras, }
24-7-1933.

C. H. BROCK,
Secretary.

APPENDIX.

Rules of the U. P. A. S. I. (Incorporated).

I. Each District Association shall register with the Secretary not later than 1st day of January each year details of the area on which subscriptions due to the U. P. A. S. I. are to be calculated for the ensuing year.

II. The Chairman shall be elected by ballot at the Ordinary General Meeting of the Association held each year and shall hold Office until a successor has been duly elected.

III. Should the Office of Chairman become vacant the Executive Committee shall appoint one of its members to hold office and fill the consequent vacancy in the Committee, such appointments to hold good until the next Ordinary General Meeting of the Association.

IV. In the absence of the Chairman in the case of any Banking Accounts requiring two signatures those of the Secretary and any member of the Executive Committee shall suffice.

V. The election of the Executive Committee shall be by ballot, representatives of each industry to be elected by the votes of the area under the corresponding products only.

VI. No subject other than those on the published Agenda shall be discussed except with the consent of the meeting. No original proposition shall be made unless thirty days' notice in the case of an Ordinary Meeting and fourteen days' notice in the case of a General Committee Meeting, stating objects and reasons, has been given to the Secretary, except with the consent of the Executive Committee with which a copy of the proposed resolution has been lodged at least two days before the meeting.

VII. In addition to its two nominated representatives each District Association may send three of its members to attend the General Meeting of the Association who shall be allowed to address the meeting, with the permission of the Chairman, but shall not vote.

VIII. The Budget for the ensuing year shall be submitted to the General Committee before the 1st day of March and the Budget Meeting of the General Committee be held at any convenient date in the latter half March each year.

IX. The Trustee of the Cochin Port Trust representing the Association shall always, if possible, be a planter and shall be elected by the postal vote of the active Members of the Executive Committee.

THE U. P. A. S. I. BUYING AGENCY (U.B.A.)

Rules.

I. The Agency is and shall be a Department of the United Planters' Association of Southern India, and as such its affairs shall be administered by the General and Executive Committees of that body and the Secretary shall be the Secretary of the U. P. A. S. I.

II. As an Agency to obtain concessions as regards prices charged for goods supplied or services rendered its members in return for prompt payment and to encourage combination in placing buying orders.

III. The following shall be entitled to membership on the payment of an annual subscription of Rs. 10 which may be collected by the Secretary forwarding the Membership Ticket by V. P. Post for Rs. 10-4-0.

All Members and European employees of Members of the U. P. A. S. I., all Members of District Associations which are members of the U. P. A. S. I., and all European employees of the U. P. A. S. I.

IV. Membership shall be reckoned from the 1st of the month nearest to the date of receipt of application and all renewals shall date from the expiry of the previous ticket, in no case shall any allowance be made for absence on leave or any ticket be issued for a period of less than twelve months. Any member whose subscription is one year in arrears shall cease to be a member.

V. A member's subscription will cover purchases by himself or any actual dependent and all purchases for any estate of which he is Superintendent or Owner (otherwise than as a Director or Shareholder only) if they subscribe to a District Association which is a member of the U. P. A. S. I.

VI. Members failing to settle their accounts with Firms in the list as provided for in Rule VII will be liable to have their names removed from the list of members and cease to be entitled to any of the benefits obtained by the Agency.

VII. The names of Firms, Companies and Persons who agree to grant special terms to Members of the Agency shall be entered in a list kept for that purpose which shall from time to time be circulated to all Members; and such firms, Companies and persons shall be furnished periodically with the Agency list of members.

VIII. The Agency will not be responsible in any way for the action of its members or of the firms, Companies, and others granting special terms.

IX. Any balance being a Profit at the end of a year shall be credited to the Southern India Planters' Benevolent Fund.

X. In no case shall the Secretary act as the agent of a member in any business connected with the Agency.

SOUTHERN INDIA PLANTERS' BENEVOLENT FUND.

*Registered under the Societies' Registration Act XXI of
1860 on the 22nd January 1924.*

Resolution of 1909.

PASSED ON AUGUST 13th, 1909.

"That in view of the great benefits a Benevolent Fund would confer on the whole Planting Community, this Association recommends the starting of a Benevolent Fund for the Planters of Southern India on the lines drawn up by this meeting, and that the Secretaries of local District Associations be requested to collect subscriptions and forward such to the Secretary, U. P. A. S. I."

Memorandum of Association of the Southern India Planters' Benevolent Fund.

1. The name of the Association is the Southern India Planters' Benevolent Fund hereinafter referred to as "The Fund."
 2. The objects for which the Association has been started are:—
 - (a) To give temporary assistance to members or to dependents of members who are in distress as the result of any good and sufficient cause.
 - (b) To give temporary assistance in special cases to dependents of European planters who are not members.
 - (c) Generally to make such use of the funds of the Association as will best effect the carrying out of the aforesaid objects or any of them, but in no case it is intended to provide an annual income.
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**Rules and Regulations of the Southern India
Planters' Benevolent Fund.**

- ship. 1. Subject to Rule 4 the following shall be entitled to membership:—
- (a) Any European Proprietor, Manager, Superintendent, Assistant or Recruiter of an Estate subscribing to a District Planters' Association which is a Member of the United Planters' Association of Southern India or who is himself a subscriber to such an Association or any European Employee of the United Planters' Association of Southern India on payment of a minimum subscription of Rs. 10 per annum.
- (b) Any Estate subscribing to a District Planters' Association which is a member of the United Planters' Association of Southern India or any member of the United Planters' Association of Southern India on payment of a minimum subscription of Rs. 25 per annum.
- Member- 2. A donor of Rs. 200 or any member subscribing Rs. 200 within a period not exceeding five years shall be considered a Life Member and entitled to the benefits of the Fund without payment of further subscriptions.
- is and 3. A donor of Rs. 1,000 either in one or more instalments shall members *be welcomed as a patron and shall be considered a LIFE MEMBER and be entitled to all benefits of the Fund, and shall not be subject to the provisions of Rule 8.*
- tion 4. All first subscriptions and applications for membership shall mber- be sent to the Secretary on a form to be prescribed by the General d Committee through the Honorary Secretaries of District Planters' Associations, tee who shall certify that the applicant is eligible for membership under of 1 and the Executive Committee shall have the right of refusing any subscription and rejecting any application for membership.
- rawal 5. Any member shall have the right of resigning his membership mber- by giving notice in writing to the Secretary on or before the 31st March of any year provided that his subscription shall have been paid up to the 31st of March of that year.
- ipation 6. All subscriptions shall be due on the 1st April each year and 1 1st the Secretary or Honorary Secretaries of local Associations shall collect the same.
- ptions 7. Any member whose subscription is more than one year in ars. arrears shall only be entitled to such benefit as is allowed under Rule 22 which restriction shall remain in force for two years after payment of such arrears.

- range of
profession. 8. Any member except a donor of Rs. 1,000 who by reason of change in his profession or employment would not be eligible for membership under Rule 1 but wishes to retain his membership shall submit an application to remain a member to the Secretary for the decision of the Executive Committee whose decision shall be final.
- donations. 9. All subscriptions of less than the minimum laid down in Rule 1 or received from persons not eligible for membership shall be treated as donations to the Fund.
- institution. 10. The Fund shall be administered by a General Committee composed of the Members of the General Committee of the United Planters' Association of Southern India, whose Secretary shall also be the Secretary of the Fund.
- executive.
committee. 11. The General Committee shall appoint an Executive Committee and may delegate to it any of the powers of the General Committee except those of making, altering or repealing by-laws.
- owers of
neral
committee. 12. The General Committee shall have power—
(a) to arrange for meetings of the members of the Fund and for its own meetings and to regulate the procedure at all such meetings including the system of voting and to alter such procedure;
(b) to make, alter and repeal all such by-laws as they may deem necessary or convenient for the proper conduct and management of the Fund provided that no by-laws shall be inconsistent with or shall affect or repeal anything contained in the Memorandum of Association or the Rules of the Fund.
- orum at
eting of
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committee.
stees. 13. At any meeting of the General Committee 7 members shall form a quorum of whom no two shall be members of the same Planters' District Association.
14. The Chairman and the Secretary of the United Planters' Association of Southern India shall be the Trustees of the Fund for the time being.
- eting of
perty. 15. All the property of the Fund moveable and immoveable shall vest in the Trustees and all documents relating to and affecting the property of the Fund shall be taken and stand in the name of the Fund; all documents relating to the properties of the Fund shall be executed by the Trustees for and on behalf of the Fund.
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id.
king. 16. The Fund shall sue or be sued in the name of the Secretary.
17. All subscriptions and monies received shall be paid into a separate account with the Imperial Bank of India, and it shall require the joint signatures of the Trustees to draw any money from that account.

18. The monies of the Fund shall be invested in any investments allowed by the law for the time being in force for the investments of Trust Funds, or they may be placed in fixed deposit with the Imperial Bank of India.

19. All applications for assistance or relief shall be made on a form to be prescribed by the General Committee and forwarded to the Executive Committee through the Secretary. Applications for assistance for employees of the United Planters' Association of Southern India shall be made direct to the Executive Committee by the Chairman of the United Planters' Association of Southern India.

20. No grants involving periodical payments shall in the first instance or in case of subsequent renewal be made for longer period than six months. It shall, however, be competent for anyone in distress to apply for further relief, and the Executive Committee may render such assistance if the Funds are sufficient to meet the deserving cases of first applicants. In no case shall first class passages be granted if second class are available.

21. The Secretary of any District Association may, with the sanction of his Association or Committee, give temporary relief in case of emergency to the extent of Rs. 100 in any one case provided that the applicant for relief is a member of the Fund or a dependent of a member.

22. Dependents of European Planters other than members may receive assistance from the Fund only on the unanimous recommendation of the Committee or other administrative body of the Planters' District Association recommending such assistance.

23. These rules may be added to, repealed, or amended by resolution at any General Meeting of the Fund of which at least three months' notice shall have been given provided that no such resolution shall be deemed to have been passed unless it be carried by a majority of at least three-fifths of the members voting thereon.

BY-LAWS.

Confirmed at the First Annual General Meeting held at Bangalore on the 23rd October 1924.

1. That the Annual General Meeting shall be held at the same place and at about the same time as the Annual General Meeting of the United Planters' Association of Southern India.

2. That at all General Meetings voting shall only be by Patrons and District Planters' Associations, members of the U. P. A. S. I. or their representatives and the Chairman of the U. P. A. S. I. Each Patron shall be entitled to five votes. The Chairman of the U. P. A. S. I. shall exercise the votes of the employees of the U. P. A. S. I. and such other members of the Funds as would otherwise be unrepresented. Representatives of District Associations and the Chairman of the U.P.A.S.I. shall be entitled to two votes for every Life Member represented and one vote for each ten rupees of the current year's subscription received before the date of the meeting from members represented by them.

PATRONS.

The Travancore Combined Planters' Association.
 The Mysore Planters' Association.
 The English and Scottish Joint Co-operative Wholesale Society Ltd.
 The Yendayar Estate.
 The Nenmeny and Redlynch Estates.
 Mr. J. J. Murphy.
 Mr. C. R. T. Congreve.
 Messrs. Volkart Bros.
 „ Mangles Bros.
 „ Stanmore (Anamallay) Estates Co., Ltd.
 „ Nonsuch Tea Estates Ltd.
 „ Sholayar Estate.

LIST OF LIFE MEMBERS.

Patrons under the Old Rules.

T. H. Allan & Co.	Kuttiadi Rubber Co. Ltd.
Anupura Coffee Works Co. Ltd.	R. Lescher.
Aspinwall & Co. Ltd.	J. Mackie.
Sir Fairless Barber, Kt.	C. A. Mackenzie.
S. Bayly.	Malayalam Plantations, Ltd.
Binny's Estates Ltd.	B. A. Marden.
Lt.-Col. C. H. Brock, O.B.E., V.D.	G. A. Marsh.
Castlecroft Estate.	C. L. McLean.
E. Sydenham Clarke.	Brooke Mockett.
Colombo Commercial Co. Ltd.	Mundakayam V. Rubber Co.
Consolidated Coffee Estates Ltd.	Muskal Bora Estate.
C. Courpalais.	L. Newcome.
Lt.-Col. W. L. Crawford, D.S.O.	J. S. Nicolls.
H. Cuthell.	K. E. Nicoll.
A. S. Dandison.	G. R. Oliver.
Darragh Smail & Co. Ltd.	Peirce, Leslie & Co. Ltd.
Eddivanna Rubber Co. Ltd.	Portland Estate.
D. Elkington.	Presidency Manure Works.
G. P. Farley.	Pudukad Rubber Co. Ltd.
T. T. C. Farr.	Puthuthottam Estate.
R. G. Foster.	J. A. Richardson.
J. F. Fraser.	J. H. Robinson.
T. P. Gauld.	R. Ross.
G. L. H. Gibson.	A. J. Saldanha & Sons.
C. H. Godfrey.	Sheikulmudi Estate.
C. J. Hall.	E. W. Simcock.
E. Hall.	Sir R. Stanes, Kt.
E. H. Halliley.	Tea Estates India, Ltd.
J. G. Hamilton.	Thodapuzha Rubber Co. Ltd.
R. Harley.	Travancore Rubber Co. Ltd.
Harrisons and Crosfield, Ltd.	J. R. Vincent.
C. St. John Ives.	J. S. B. Wallace.
J. H. Ireland Jones.	H. J. Walmesley.
Karamalai Estate.	Capt. E. G. Windle.
Kerala Calicut Estates Ltd.	Woodlands and Olands Estates.
Kinalur Rubber Co. Ltd.	W. Woodman.
Koragamudi Estate.	B. Wolde.

REPORT

OF THE

TENTH ANNUAL GENERAL MEETING

OF THE

SOUTHERN INDIA PLANTERS' BENEVOLENT FUND.

(INCORPORATED.)

The Tenth Annual General Meeting of the Southern India Planters' Benevolent Fund (Incorporated) opened at the Mayo Hall, Bangalore, on Wednesday the 16th August, 1933, commencing at 12-30 p.m.

The following were present:—

Mr. R. Fowke	..	<i>Chairman.</i>
Lt.-Col. C. H. Brock	..	<i>Secretary.</i>
Lt.-Comdr. E. L. Hill	..	<i>Ass. Secretary.</i>

and the following representatives of Members:—

Anamallais	Mr. J. C. Blackham.
C. Travancore	Messrs. W. A. J. Milner & C. J. Madden
Coorg	„ P. G. Tipping & J. S. H. Morgan
Kanan Devans	„ J. S. B. Wallace & E. N. Pinks.
Mundakayam	Mr. W. A. J. Milner (Substitute).
Mysore	Messrs. L. Garrett & E. W. Fowke.
Nelliampathies	Mr. J. S. B. Wallace (Substitute).
Nilgiris	Messrs. C. R. T. Congreve & A. K. Weld Downing.
Nilgiri-Wynaad	Messrs. R. N. W. Jodrell & R. M. Greig.
Shevaroyis	„ E. H. A. Travers Drapes & P. V. Briscoe.
S. Travancore	Mr. Eric Hall.
West Coast	Mr. R. M. Ross.
Wynaad	Messrs. T. E. Howe & C. E. A. Ewart.

The Secretary read the notice calling the meeting.

The Chairman.—Said that the first item on the Agenda was to confirm the proceedings of the last Annual Meeting which was held on the 16th August, 1932 and published in full in the Book of Proceedings. He wished to know whether he had their permission to sign the minute book as a correct record.

The meeting having signified their assent, the Chairman then asked the Secretary to read the Report on the working of the Fund for the year ending 31st March 1933.

SECRETARY'S REPORT

FOR THE YEAR ENDING 31ST MARCH, 1933.

Membership.—The number of planters subscribing to the Fund decreased during the year from 303 to 271 and the number of estates from 104 to 78. The amounts received were Rs. 3,416-12-0 and Rs. 2,415-0-0 as against Rs. 5,132-4-2 and Rs. 3,695-0-0 respectively received in the previous year.

Donations.—During the year 6 Associations and 18 Firms and individuals gave donations amounting to Rs. 760 as against Rs. 1,431-10-6 received in the last year.

Income.—The total receipts from subscriptions and donations amounted to Rs. 6,591-12-0. Interest on investments realized Rs. 6,090-9-6 and the balance transferred from the Buying Agency was only Rs. 706-11-8 (chiefly due to many Rubber Planters having resigned from the Agency). The appreciation in value of our investments in Government Bonds valued by the Auditors as on the 31st March shows a book income of Rs. 4,472-7-1. These make the total income for the year Rs. 17,831-8-3 which is Rs. 1,748-3-8 more than that received in the previous year. The income from Interest received for the year under review was considerably better than that received last year, which was mainly due to all our investments having been made in Government securities yielding better rate of interest than the Fund was obtaining from investments in Fixed Deposits with the Imperial Bank.

Expenditure.—The assistance granted this year amounted to Rs. 9,940-12-8, which though Rs. 1,500-15-9 less than that granted in the previous year shows an increase in the number of cases assisted. The grants included the maintenance and education of 6 children, allowances to 7 widows, and 6 planters, and passages out of India to two families, or an increase of 3 more cases. Running expenses amounted to Rs. 99-8-0 bringing the total expenditure to Rs. 10,040-4-8 leaving a surplus of income over expenditure of Rs. 7,791-3-7, of which Rs. 4,442-7-1 represents the appreciation in value of Government Bonds, leaving a nett surplus of Rs. 3,348-12-6.

Investments.—The total of the Fund as at 31st March 1933, was Rs. 1,28,589-12-10 and of this amount Rs. 1,26,035-2-0 is invested in Government Bonds.

The Chairman.—Then asked if any delegate had any questions to ask or comments to make in connection with the Secretary's Report. As no one had any question to raise, the Chairman proposed the following resolution:—

"That the Secretary's Report be adopted."

The resolution was carried unanimously.

EXECUTIVE COMMITTEE.

The Chairman.—Explained that under the Rules of the Fund it was necessary to appoint an Executive Committee as a new U. P. A. S. I. Executive Committee had been elected that day. He proposed from the Chair:—

"That the Executive Committee of the U. P. A. S. I. be the Executive Committee of the Southern India Planters' Benevolent

Fund, with all powers of the General Committee except those of making, altering or repealing By-laws."

The resolution was carried unanimously.

ACCOUNTS.

The Chairman.—Said that the Accounts had been printed and circulated and they all had copies of them. He wished to know whether any one had any questions to ask or criticisms to make.

Mr. E. W. Fowke.—Wanted to know, with regard to the passages allowed, whether it was Tourist class or any other class that was allowed.

The Secretary.—Explained that in all cases only Tourist class passages were allowed.

The Chairman.—Then proposed from the Chair:—

"That the Accounts for 1932-33 be adopted."

The resolution was carried.

RULES.

The Chairman.—Said the Executive Committee had referred the matter of the alterations to the Rules to the various District Associations, but the opinions had been so varied that no further action had been taken, and it was for this Meeting to discuss the matter further. To start the discussion he would ask the Kanan Devan Planters' Association delegate to move their resolution.

Mr. Pinks.—Moved the following resolution:—

"That the Committee of Management be approached with a view to reducing the initial membership subscriptions of Junior Assistants to Rs. 5 per annum for a period of five years from date of employment in the country. Thereafter the subscription be increased to Rs. 10. District Planters' Associations to certify length of service."

He said that there had been considerable falling off in the number of subscribers owing to the Junior Superintendents who were getting only small salaries being unable to contribute to the Fund. The matter was gone into very carefully by the Committee of the K. D. P. A. and it was decided that the Junior Superintendents' subscriptions should be reduced to Rs. 5 for a period of five years from date of employment in the country. Although he had received representations from a major portion of the District Associations that they were not in favour of the resolution, yet he thought the matter might be discussed at this Meeting, as by adopting his Association's suggestion the subscriptions would considerably increase which would materially benefit the Fund.

Mr. Eric Hall.—Seconded the resolution.

The Chairman.—Before putting the resolution to the vote wished to know whether any delegate had anything to say on the matter.

Mr. Morgan.—Said that the C. P. A. were against reducing the subscriptions of personal members.

The Nilgiri P. A., the Mysore P. A., the A. P. A., the Wynad P. A., and the C. Travancore P. A. delegates all said that they were against the resolution.

The Chairman.—Then put the resolution to the vote.

The Resolution was LOST.

The Chairman.—Said that the Central Travancore Planters' Association had tabled a resolution and he requested their delegate to speak to it.

Mr. Madden.—Proposed:—

"That this Association does not favour any alteration to the existing Rule No. 22 of the Southern India Planters' Benevolent Fund."

He said that Rule No. 22 dealt with non-members, and this resolution was brought up because the Executive Committee had asked for an expression of opinion. Rule No. 22 allowed for grants being given to the dependents of non-members on the unanimous recommendation of the committee of the District Association. The Section 2 (b) of the Memorandum and Articles of Association stated that the Association was formed to give temporary assistance to dependents of non-members and so he did not favour any change in the Rule. They were perfectly satisfied that the Executive Committee were competent to administer the Fund and were perfectly satisfied that they had done so in the past. The S. T. P. A. had kindly agreed to second the resolution.

Mr. Howe.—Wished to know from Mr. Madden with regard to his faith in the Executive Committee, if the Executive Committee decided to give help to some one who was not a member of the Association was he prepared to approve of that being done.

Mr. Madden.—Said that they were perfectly satisfied with the past working of the Committee and they did not propose to enquire into details.

Mr. E. W. Fowke.—Was quite willing to leave it to the Executive Committee.

Mr. Howe.—Said that his Association fully approved of the fact that assistance should be given to Planters who were not and who had not been members of the Fund, but he could not see how the Articles and Memorandum of the Association could be violated. They were, he thought, placing the Executive Committee in a very difficult position because if they agreed to non-members receiving benefits from the Fund and the Executive Committee acted on that, they were laying themselves open to be criticised, that the Executive Committee appointed to run the Fund had acted absolutely contrary to the Memorandum of the Association of the Fund. He had been instructed by his Association to state that they were very definitely in favour of assistance being granted to any planter who in the opinion of the Executive Committee was in need of assistance, because they took the view that this Fund was a charitable Fund. It was a thing that had been instituted by Planters to help planters, and if they were going to distinguish in their charity or benevolence that only such and such should receive benefits it ceased to be a charitable Fund and assumed the aspect of a Provident Fund. In the opinion of the members of his Association this was entirely contrary to the spirit of charity which was the absolute basic principle of the

Fund. He would like to state further that his Association was strongly in favour of giving assistance to any planter who was in need of assistance, but at the same time he could not see how this could be done with the present rules as they are constituted without violating the Memorandum of Association.

Mr. Newcome.—Agreed with every word of what Mr. Howe had said and he thought it was necessary to deal with that point and get the rule altered.

Mr. Madden.—Thought that it was putting too much premium on thriftlessness. Every planter should be made to subscribe. After all it was a Benevolent Fund.

Mr. Travers-Drapes.—Said that his Association considered that as the number of subscribers to the Fund was rapidly falling off and more and more difficulty in getting subscribers was being experienced to-day, he thought there was danger of subscribers and dependents of subscribers being refused assistance if the Committee continued to give assistance to non-subscribers, and for this reason he thought subscribers should have first claim on the Fund until times improved and prosperity set in again, when the matter could be brought up for consideration.

Mr. Howe.—With regard to the remarks made by Mr. Madden that he would like to see all Planters subscribe to the Fund, in the opinion of his Association, benevolence when it was compulsory ceased to be charity. Regarding the other point raised by Mr. Travers-Drapes it was only right that subscribing members should have first claim on the Fund. He referred the previous speaker to look back on the last two and a half years when, owing to the unprecedented financial strain though there had been lots of demands on the Fund, he believed that every deserving case had secured help and no deserving case had been refused. Times were improving and he thought it was time that our charity to those who had not been members were extended.

Mr. Weld Downing.—Then read out the views of the Committee of the Nilgiri P. A. appointed at the last Annual Meeting of their Association as follows:—

1. This Association is of the opinion that the Trustees of the S. I. P. Benevolent Fund should refuse all applications for a subsistence allowance to applicants who have not been regular subscribers to the Fund when in a position to do so. Exception to this can, however, be made at the discretion of the Trustees in the event of the applicant being permanently or temporarily disabled.
2. All such applications if strongly supported by the District Planters' Association, should if possible be assisted with a passage for themselves and their dependents. Help may also be given to their dependents if remaining in this country, provided that in all such cases the claims of regular subscribers shall be given preference.
3. The definition of the expression "Regular Subscribers" shall be left to the discretion of the Trustees of the Fund.

Mr. Morgan.—Said that the Cong P. A. were in favour of the resolution. At the same time he agreed with Mr. Weld Downing's remarks that members should receive preference over non-subscribers.

Mr. E. W. Fowke.—Said he had no instructions from his Association. Personally he thought that any planter who was in distress should be helped.

Mr. Pinks.—Said if the Meeting was of the opinion that support should be extended to all deserving cases whether members or non-members, on behalf of his Association he would suggest that, if any alteration to the Rules were necessary, such alterations should be made.

The Chairman.—Pointed out that in order to legalise the position of the Executive Committee the Memorandum would have to be altered. That was an expensive matter. If they did not alter the memorandum as Mr. Howe had suggested, the Executive Committee would be violating the Rules of the Fund, and he wished to know whether they wished the Executive Committee to go into the question as to what it would cost to alter the Memorandum of Association. He pointed out that there was one way of getting out of the difficulty. The suggestion was that in the event of a non-subscriber wishing to apply for assistance his sponsors pay in Rs. 10 to make him a member of the Fund. By his becoming a member of the Fund they could overcome the difficulty of the Memorandum of Association and the Executive Committee would be within the Rules in granting assistance in such cases.

Mr. Morgan.—Pointed out that in the Memorandum of Association under 2 (b) it stated temporary assistance to dependents of planters who are not members may be given. In Article 22 dependents of European Planters other than members may receive assistance from the Fund only on the unanimous recommendation of the Committee or other administrative body of the Association recommending such assistance. He thought the above covered the point at issue.

The Chairman.—Said that the point at issue was the granting of assistance to non-members of the Fund, not to the dependents of non-members, and this was not provided for in the Memorandum of Association. The simplest way out of the difficulty was, as he suggested previously, that the man be made a member. It was merely a suggestion put to the meeting for their approval.

The Meeting approved of the suggestion made from the Chair.

The Resolution was put to the vote.

The resolution was carried.

Mr. Howe.—Then explained the various alterations to the Rules which his Association had asked him to bring up at this meeting for consideration and said that these suggested alterations had already been circulated to all District Associations.

Some of the delegates pointed out that they had not yet received a copy of the W. P. A's. suggested alterations.

The Chairman.—Then explained that for any alterations to be made to the Rules three months' notice had to be given, and as the requisite notice had not been received, he would suggest to Mr. Howe that due notice be given and the matter brought up in the prescribed manner.

With a vote of thanks to the Chair, the proceedings terminated.

MADRAS,
21st August, 1933.

C. H. BROCK,
Secretary.

SOUTHERN INDIA PLANTERS' BENEVOLENT FUND ACCOUNT.

Balance Sheet as at 31st March 1933.

LIABILITIES		Rs	A. P.	Rs	A. P.	ASSETS.		Rs.	A. P.	Rs.	A. P.
GENERAL FUND ACCOUNT.—											
Balance as per last Balance Sheet	...	1,20,798	9 3			INVESTMENTS.—					
						Rs. 18 500, 3½% Loan	...	16,095	0 0		
						Rs. 5,000, 6½% 1935 Treasury Bonds	...	5,000	0 0		
Add Excess of Income over Expenditure	...	7,791	3 7			Rs. 10,300, 5½% 1938—40 Loan.	...	10,030	0 0		
						Rs. 89,600, 5% 1940—43 Loan.	...	89,910	3 0		
						Rs. 5,000, 5% 1945—55 Loan...	...	5,000	0 0		
				1,28,589	12 10					1,26,035	2 0
AMOUNT DUE TO THE UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA						INTEREST ACCRUED ON INVESTMENTS	...	...		2,830	1 5
				535	9 10	CASH AND OTHER BALANCES.—					
						With Imperial Bank of India on Current Account	...	231	3 3	...	
						Cash on hand	...	19	0 0	250	3 3
Total Rs.	...	...		1,29,115	6 8	Total Rs.		...		1,29,115	6 8

Income and Expenditure Account for the year ended 31st March, 1933.

EXPENDITURE.		Rs.	A.	P.	Rs.	A.	P.	INCOME.		Rs.	A.	P.
TO ASSISTANCE GRANTED.—												
Case No. 1	Widow ..	900	0	0				By Subscriptions and Donations ..	6,591	12	0	
Case No. 2	Widow ..	600	0	0				By Interest on Government Loans ..	6,090	9	6	
Case No. 3	Widow ..	1,197	11	1				By Amount transferred from Buying Agency ..	706	11	8	
Case No. 4	Widow ..	691	14	4				By Appreciation on Government Loans ..	4,442	7	1	
Case No. 5	Education of 2 Boys and 1 Girl ..	1,775	3	0								
Case No. 6	Education of 1 Boy and 1 Girl ..	261	2	0								
Case No. 7	Home allowance to destitute planter, ..	400	0	0								
Case No. 8	Passage to invalid planter and wife ..	1,086	1	6								
Case No. 9	Widow ..	300	0	0								
Case No. 10	Invalid planter, ..	500	0	0								
Case No. 11	Destitute planter ..	200	0	0								
Case No. 12	Destitute planter ..	397	12	9								
Case No. 13	Education of 1 Girl ..	156	0	0								
Case No. 14	Destitute planter ..	600	0	0								

THE SOUTHERN INDIA PLANTERS' BENEVOLENT FUND ACCOUNT.

Income and Expenditure Account for the year ended 31st March, 1933—(Continued.)

EXPENDITURE.	Rs.		A. P.		INCOME.		Rs.		A. P.		Rs.		A. P.	
Case No. 15 Invalid Widow	500	0	0											
Case No. 16 Widow	225	0	0											
Case No. 17 Destitute planter	150	0	0											
or														
TO EXPENSES							9,949	12	8					
Postage and Telegrams	50	2	9											
Incidentals	4	3	3											
Bank Charges	16	2	0											
Stationery	29	0	0											
TO EXCESS OF INCOME OVER EXPENDITURE TRANSFERRED TO GENERAL FUND							99	8	0					
							7,791	3	7					
Total Rs				17,831	8	3					
											Total Rs.
												17,831	8	3

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THE
United Planters' Association
OF
Southern India

(INCORPORATED)

FORTY-FIRST ANNUAL GENERAL MEETING

HELD AT
COONOR

ON

12th, 13th and 14th September 1934.

WITH APPENDICES.

MADRAS
PRINTED BY THE MADRAS PUBLISHING HOUSE, LTD.
1934.

United Planters' Association

OF

Southern India

(INCORPORATED)

ESTABLISHED 1894, INCORPORATED 1899,
REORGANIZED 1919.

MEMBERS.

District Planters' Associations.

ANAMALLAI PLANTERS' ASSOCIATION.
CENTRAL TRAVANCORE PLANTERS' ASSOCIATION.
COORG PLANTERS' ASSOCIATION.
KANAN DEVAN PLANTERS' ASSOCIATION.
MUNDAKAYAM PLANTERS' ASSOCIATION.
MYSORE PLANTERS' ASSOCIATION.
NELLIAMPATHY PLANTERS' ASSOCIATION.
NILGIRI PLANTERS' ASSOCIATION.
NILGIRI-WYNAAD PLANTERS' ASSOCIATION.
SHEVAROY PLANTERS' ASSOCIATION.
SOUTH TRAVANCORE PLANTERS' ASSOCIATION.
WEST COAST PLANTERS' ASSOCIATION.
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Planting Member.—LT.-COL. C. H. BROCK, O.B.E., V.D., M.L.C.

Secretary.—LT.-COL. C. H. BROCK, O.B.E., V.D., M.L.C.

Registered Office.—Parry's Buildings, North Beach Road, Madras.

HEAD OFFICE:—'GLENVIEW', COONOR.

AUDITORS:—MESSRS. FRASER & ROSS, No. 17, Armenian St., Madras.

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1908-1909	..	" " " C. E. ABBOTT.
1909-1912	..	" " " J. G. HAMILTON.
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1919-1922	..	MR. J. A. RICHARDSON, M.L.C.
1922-1925	..	" C. R. T. CONGREVE, M.L.C.
1925-1926	..	CAPT. E. G. WINDLE, M.L.C.
1926-1929	..	MR. C. R. T. CONGREVE, M.L.C.
1929-1930	..	" F. E. JAMES, M.L.C.
1931	..	" H. WADDINGTON, M.L.C.
1931-1932	..	" F. E. JAMES, M.L.C.
1932-1934	..	" W. K. M. LANGLEY, M.L.C.
1934	..	LT.-COL. C. H. BROCK, O.B.E., V.D., M.L.C.

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1895-1896	..	"	W. H. SPROTT.
1896-1897	..	"	G. L. ACWORTH.
1897-1899	..	"	GEO. ROMILLY.
1899-1900	..	"	W. H. SPROTT.
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1909-1910	..	"	J. A. RICHARDSON.
1910-1911	..	{	R. D. TIPPING.
		"	C. H. BROCK.
		"	HON. MR. J. G. HAMILTON.
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1913-1914	..	"	E. L. MAHON.
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1919-1920	..	"	A. S. DANDISON.
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1921-1924	..	"	H. L. PINCHES.
1924-1925	..	"	J. A. GWYNNE.
1925-1927	..	"	R. FOWKE.
1927-1928	..	"	A. C. COTTON.
1928-1929	..	"	R. LESCHER.
1929-1930	..	"	W. A. J. MILNER.
1930-1932	..	"	C. R. T. CONGREVE.
1932-1934	..	"	R. FOWKE.
1934	..	"	H. J. WALMESLEY.

PROCEEDINGS
OF THE
FORTY-FIRST ANNUAL GENERAL MEETING
OF THE
UNITED PLANTERS' ASSOCIATION
OF
SOUTHERN INDIA
(INCORPORATED)

The Forty-first Annual General Meeting of the United Planters' Association of Southern India, (Incorporated), opened at 11-30 a.m. on Wednesday, the 12th September, 1934, at 'Glenview', Coonoor.

The following were present:—

MR. R. FOWKE	..	<i>Chairman.</i>
W. A. J. MILNER	..	<i>Ex-Chairman.</i>
J. S. B. WALLACE	..	} <i>Members of the Executive Committee.</i>
L. GARRETT	..	
ERIC HALL	..	
F. E. JAMES, O.B.E., M.L.A.	..	<i>Political Representative.</i>
DR. W. S. SHAW, PH.D., M.SC., F.I.C.	..	<i>Tea Scientific Officer.</i>
MR. W. W. MAYNE, B.SC.	..	<i>Coffee Scientific Officer.</i>
LT.-COL. C. H. BROCK, O.B.E., V.D.,	..	<i>Secretary, Director of the</i>
M.L.C.	..	<i>Labour Department and</i> <i>Planting Member.</i>

and the following representatives of Members:—

ASSOCIATIONS.

<i>Anamallais</i>	..	MESSRS. A. W. F. MILLS AND G. B. READE.
<i>C. Travancore</i>	..	.. C. J. MADDEN & W. F. INMAN.
<i>Coorg</i>	..	.. A. E. J. NICOLLS & J. H. SPROTT.
<i>Kanan Devans</i>	..	.. E. H. FRANCIS AND A. S. ROBERTSON.
<i>Mundakayam</i>	..	MR. J. J. MURPHY.
<i>Mysore</i>	..	MESSRS. L. GARRETT, E. W. FOWKE AND R. C. MORRIS.
<i>Nelliampathy</i>	..	MR. P. W. DAVIS.
<i>Nilgiris</i>	..	MESSRS. C. L. GREIG AND R. C. BULTEEL.
<i>Nilgiri-Wynaad</i>	..	.. R. M. GREIG AND R. C. ALDERSON. •

<i>Shevaroyis</i>	..	MESSRS. P. V. BRISCOE AND W. A. RAHM.
<i>S. Travancore</i>	..	MR. W. GILLESPIE.
<i>West Coast</i>	..	" H. J. WALMESLEY.
<i>Wynaad</i>	..	MESSRS. T. E. HOWE AND I. W. FINLAYSON.

FIRMS.

<i>Messrs. The Anupura Coffee Works Co., Ltd.</i>	..	MR. W. J. CAMPBELL.
" <i>Aspinwall & Co., Ltd.</i>	..	" H. D. PATCH.
" <i>The Asea Electric Co., Ltd.</i>	..	" S. STROMGREN.
" <i>Bayly & Brock Ltd.</i>	..	" S. BAYLY.
" <i>Bombay-Burmah Trading Corporation Ltd.</i>	..	" ERIC JOHNSON.
" <i>Burmah-Shell Oil Storage & Distributing Co. of India Ltd.</i>	..	" C. F. LABORDE.
" <i>Dunlop Rubber Co. (India), Ltd.</i>	..	" T. E. HOWE. <i>Oppen</i>
" <i>English Electric Co., Ltd.</i>	..	" R. H. CRIDGE.
" <i>Harrisons & Crossfield Ltd.</i>	..	" L. A. LAMPARD.
" <i>Overseas Potash Supply Co., Ltd.</i>	..	DR. P. PIEKENBROCK.
" <i>Parry & Co., Ltd.</i>	..	MR. C. ELPHINSTON.
" <i>Peirce, Leslie & Co., Ltd.</i>	..	" J. E. PITCAIRN.
" <i>Shaw, Wallace & Co.</i>	..	" J. E. WATERFIELD.
" <i>Southern India Plantation Agency Ltd.</i>	..	" J. N. SMITH.
" <i>Spencer & Co., Ltd.</i>	..	" M. F. BERKELEY.
" <i>Tea Estates India Ltd.</i>	..	" W. H. MILLAR.

VISITORS.

His Excellency Lt.-Col. the Right Hon'ble Sir George Frederick Stanley, P.C., G.C.I.E., C.M.G., Governor of Madras, and Lady Beatrix Stanley.

The Hon'ble Lt.-Col. C. T. C. Plowden, Resident in Mysore and Chief Commissioner of Coorg.

Mr. A. D. Crombie, I.C.S., Private Secretary to His Excellency the Governor of Madras.

Lt.-Col. S. E. L. Baddeley, Military Secretary to His Excellency the Governor of Madras.

Capt. Rajkumar C. Desraj Urs.

Mr. C. A. Souter, I.C.S., First Member, Board of Revenue.

Mr. A. Wimbush, Chief Conservator of Forests.

Mr. A. G. Blake, I.C.S., Collector of Nilgiris.

Mr. F. G. Luker, Chairman, European Association, Madras Branch.

Mr. A. M. Livingstone, Marketing Expert to the Imperial Council of Agricultural Research.

Mr. V. Hart, Chief Engineer, P.W.D.

Mr. S. Krishna Iyer, B.A., B.L., President, Indian Tea Planters' Association of Travancore.

Mr. A. K. Yegnanarayana Iyer, M.A., Dip. in Agri. (Cantab.), M.D.D. (England), F.C.S., Director of Agriculture in Mysore State.

Mr. C. R. Charsley, District Superintendent of Police.

Mr. J. A. R. Lloyd, Joint Controller, Indian Tea Licensing Committee.

Messrs. E. G. Cameron, W. A. Cherry, A. K. Weld-Downing, L. F. Lake, J. R. N. Pryde, John Smith, J. Beaver Vernede and P. S. Wright.

and the following ladies:—

Mrs. Plowden.	Mrs. E. W. Fowke.	Mrs. Milner.
Mrs. Stokes.	Mrs. Francis.	Mrs. Morris.
Mrs. Blake.	Mrs. Garrett.	Mrs. Nicolls.
Mrs. Alderson	Mrs. Gillespie.	Mrs. Patch.
Mrs. Brock	Mrs. Greig.	Mrs. Pitcairn.
Mrs. Briscoe.	Mrs. Hall.	Mrs. Rahm.
Mrs. Bulteel.	Mrs. Howe.	Mrs. Reade.
Mrs. Campbell.	Mrs. Inman.	Mrs. Robertson.
Mrs. Cridge.	Mrs. Laborde.	Miss Smith.
Mrs. Davis.	Mrs. Lescher.	Mrs. Sprott.
Mrs. Elphinston.	Mrs. Lloyd.	Mrs. Stanes.
Miss Finlayson.	Mrs. Madden.	Mrs. Wallace.
Mrs. R. Fowke.	Mrs. Marsh.	Mrs. Walmesley.

**First Day, Wednesday, 12th September, 1934,
11-30 A. M.**

The Chairman:—I will ask His Excellency to kindly open the Meeting.

His Excellency:—Mr. Chairman, Ladies and Gentlemen, I have very much pleasure in declaring the meeting open (applause).

The Chairman:—I will ask the Secretary to read the notice calling the meeting.

The Secretary then read the notice calling the meeting, and also announced that he had received letters regretting not being able to attend the meeting from His Highness the Maharajah of Mysore, His Highness the Maharajah of Travancore, His Highness the Maharajah of Cochin, Sir Mirza M. Ismail, Dewan of Mysore, and the Hon'ble Mr. P. T. Rajan, Minister of the Government of Madras; also a cable from Messrs. Cotton, Congreve and Jodrell and a telegram from Sir Fairless Barber.

The Chairman:—The next item of business is the Executive Committee's Report. With your permission I will take it as read.

EXECUTIVE COMMITTEE'S REPORT.

I. THE U. P. A. S. I.

Membership—The number of District Planters' Associations, Members of the Association, remains unaltered at thirteen. Since the last Report was issued, the following Firm Members have resigned:—Messrs. Binny's Estates Ltd., and the United Coffee Supply Co., Ltd. Messrs. Dunlop Rubber Co. (India) Ltd., English Electric Co., Ltd., and the Asca Electric Limited, have been elected members of the Association so that the number of Firm Members now stands at 21.

Acreage.—The total area subscribing to the U.P.A.S.I. on the 31st March 1934 was 300 acres less than on the same date in the previous year. There was a slight increase in the area of Tea and decreases in the acreage of Rubber, Coffee and Cardamoms subscribing to the Association.

Acreage which Subscribed to U.P.A.S.I. on 31st March 1934.

Associations.	Tea	Coffee	Rubber.	Carda- moms.	Cin- chona.	Pep- per.	TOTAL.
Anamallais ...	25,067	2,058	...	2,695	137	...	29,957
C. Travancore.	21,453	...	...	83	...	...	21,536
Coorg ...	362	14,181	...	40	...	...	14,583
Kanan Devans ...	33,331	563	...	567	13	...	34,476
Mundakayam	1,660	...	7,727	...	...	...	9,387
Mysore	2,752	16,014	...	850	...	...	19,616
Nelliampathies	697	2,316	198	698	1	...	3,910
Nilgiris ...	10,013	2,333	...	...	...	...	12,346
Nilgiri-Wynaad.	12,406	3,651	...	...	...	...	16,057
Shevaroyas ...	...	4,606	...	...	...	...	4,606
S Travancore ...	6,704	...	12,330	...	...	...	19,034
West Coast ...	...	...	6,337	...	...	...	6,337
Wynaad ..	9,832	170	...	...	...	74	10,076
TOTAL ..	1,24,277	45,894	26,592	4,933	151	74	201,921

Executive Committee.—During the year there were several changes in the Executive Committee personnel. In January Mr. H. S. Cameron resigned his seat as member-in-waiting for Tea and Mr. C. R. T. Congreve was co-opted to take his place. In April, Mr. J. S. H. Morgan went home on furlough, so Mr. L. Garrett became Active Member for Coffee, and Mr. A. E. J. Nicolls was co-opted as member-in-waiting. In the same month, Mr. W. K. M. Langley also went away on furlough and, there being no unpaid Planting Member, Mr. C. R. T. Congreve took his place on the Committee as Ex-Chairman. Mr. H. S. Cameron was co-opted as member-in-waiting for Tea in place of Mr. Congreve.

Meetings.—During the year there has been three meetings of the General Committee, and five meetings of the Executive Committee.

Office.—During the Christmas holidays, the Head Office of the U.P.A.S.I. was transferred from Madras to Coonoor where the property known as the "Glenview" Hotel was bought by the Association for quarters and Offices of the U.P.A.S.I. and the Tea Licensing Committee. In February, the South Indian branch of the Indian Tea Cess Committee was also transferred to "Glenview", but as the work of the Tea Cess Committee is now being carried on east of Trichinopoly, it has been decided that the South Indian branch of the I.T.C.C. be moved from Coonoor to Trichinopoly at the end of August.

Staff.—The only change that has taken place in the staff of the U.P.A.S.I. since those mentioned in the last Report is that the services of Lt. Comdr. E. L. Hill were dispensed with on the completion of his agreement. No Assistant Secretary has been appointed to take his place.

Work at the Head Office.—The number of letters received during the year was 8,916 and the number despatched 14,556. This does not include any correspondence in connection with "Planters' Chronicle". These figures again show a very large increase in the number of letters both received and sent, chiefly due to the extra correspondence entailed in connection with the schemes for the Restriction of Tea Output and the Rubber Restriction of Exports.

Provident Funds.—At the close of the year, the number of members in the European Fund was 8 and the total of the Fund amounted to Rs. 1,63,092-6-9. In the Indian Fund there were 117 members and the total of the Fund on the 31st March 1934 was Rs. 54,145-4-1.

The Planters' Chronicle.—On the Offices of the U.P.A.S.I. being transferred to Coonoor, the Secretary took over the work of Editor and Manager of the paper as from the 1st January 1934 in view of the approaching termination of Lt. Comdr. E. L. Hill's agreement. The year's working showed a net surplus of income over expenditure of Rs. 812-6-7.

U.P.A.S.I. Buying Agency.—There were 306 subscribers at the end of the year, as compared with 305 in the previous year. The excess of income over expenditure amounting to Rs. 616-2-11 was, as usual, transferred to the credit of the Southern India Planters' Benevolent Fund.

II. AFFILIATED ASSOCIATIONS.

The South Indian Association in London.—Throughout the year, the U.P.A.S.I. has been in close touch with the Association in

London, and to facilitate more rapid exchange of views full use has been made of correspondence by Air Mail. The Association was of particular assistance to the U.P.A.S.I. in connection with the purchase of the "Glenview" property which, though in the hands of the Administrator-General, Madras, practically belonged to the mortgagors in England with whom the Chairman of the South Indian Association came to an agreement as to the purchase price.

The Indian Tea Association.—The U.P.A.S.I. and the Indian Tea Association have worked in close co-operation with each other on all matters which affect the Tea Industry and in particular in connection with the Restriction of Tea Exports and the scheme for the Restriction of Tea Crop.

The Indian Tea Cess Committee.—Mr. J. S. B. Wallace having resigned his seat both on the Indian Tea Cess General Committee and on the Sub-Committee for South India, Mr. A. W. F. Mills was elected to take his place on the General Committee of the I.T.C.C., and Mr. E. H. Francis on the Sub-Committee for South India. Three meetings were held during the year, one in August at the time of the Annual General Meeting in Bangalore, the other in January 1934 at Coonoor and the last one in May 1934 at Coimbatore.

The Employers' Federation of India.—The United Planters' Association was duly elected a member of the Employers Federation of India, and Mr. F. E. James represented the Association at the first Annual Meeting of the Federation which was held at New Delhi on the 7th April 1934.

III. LEGISLATION.

Planting Member.—Mr. F. E. James, M.L.A., continued to serve on the Legislative Assembly and was present at the sessions held in Delhi in September, December, 1933 and February, March and April, 1934. On the 10th May, he left India for England on short leave and he is expected to be back in time for the session of the Legislative Assembly in July/August.

Mr. W. K. M. Langley attended all the meetings of the Madras Legislative Council up to the end of March. On his proceeding home on furlough, the Secretary was elected to take his place on the Legislative Council pending Mr. Langley's return to India.

Workmen's Compensation Act (Amendment) Bill.—In the September session of the Legislative Assembly, the Workmen's Compensation Act Amendment Bill was passed. The Section regarding new rates of compensation and new classes of dependents came into force as from the 1st January 1934, but the other amendments to the Bill came into force as from 1st July 1934. Under the Act, as now amended, all employees on planting estates come within the scope of the Act.

On the passing of the Act, various Insurance Companies took up the matter of insuring all plantation labour against the liabilities under the Act. Hitherto this has been done for estate factory labour only at a flat rate of four annas per cent. on the total wages of the factory coolies. Now that all estate labour is included under the Act, insurance can be effected at the rate of two annas per cent. of the total wages earned on an estate inclusive of all field labourers and factory labourers. It may

be mentioned that the Act now applies to all motor drivers and cleaners who can also be insured for a sum Rs. 10 per annum each.

Trade Disputes Act.—In reply to a letter from the Government of India, Department of Industries and Labour, asking for the opinion of the Association regarding the desirability of continuing the operation of the Trade Disputes Act (VII of 1929) and of amending it in certain respects, the Executive Committee decided to reply in accordance with the views expressed by the Madras Chamber of Commerce and the Employers' Federation of South India. Briefly these views were:—

- (1) That the Act should be made permanent.
- (2) That action by a conciliation officer should be obligatory.
- (3) That the obligation to give notice of a strike should be extended to all workmen and not only certain classes.
- (4) That strikes in pursuance of disputes under reference to a Board or Court should be strictly prohibited, as well as picketing in similar circumstances.

The Payment of Wages Bill.—The views of the Association on this Bill, sent in to the Government of Madras on the 30th May 1933, generally approved of the principles underlying the Bill but we had the following comments to make on the various clauses as set out hereunder:—

Clause 1 (4).—The definition of the words "industrial establishment" is obviously required.

Clauses 3 (2).—It is considered that there should be a period of more than two days within which to pay the wages in the case of employment being terminated, as this is necessary in the case of factories situated in areas where banking facilities are not readily available. 14 days has been suggested as the suitable period for this.

Clause 4 (2) (d).—In certain factories it might be necessary for the management to supply in advance cash, foodstuffs or clothing. It is presumed that such issues may be considered as part payments and their recovery does not come under the heading of deductions.

Clause 5 (2).—The maximum amount of fines should be one anna in the Rupee instead of half an anna.

Clause 6.—It is obviously quite impossible to recover the cost of an expensive article from the low-paid employee's wages. It should be possible for an employer to cover such articles by insurance.

Clause 10 (2).—It would seem a dangerous and undesirable practice for allowing claims to be made on behalf of an employee by an agent.

Arrest and Imprisonment for Debt.—In reply to an enquiry from the Government of Madras on this subject, the Association expressed its opinion that oppressive usury should be discouraged by all possible means, but a comparison of what has been achieved in England and other civilised countries with India shows a disregard for the actual disparity of conditions which exist in the latter country, and, therefore, was very strongly opposed to any abolition of imprisonment for debt, although various opinions have been expressed to the effect that imprisonment should remain as a penalty in connection with trading debts but not in regard to personal debts. This, however, involves a discrimina-

tion which is wrong in principle, quite apart from the difficulty of defining exactly what a personal debt is.

Recovery of Advances.—In reply to a request from the Commissioner of Labour asking for the Association's views on the Whitley Commission recommendations for making the recovery of recruiting advances illegal, the Association expressed its opinion that the restriction of the amount of advances paid to plantation labourers was desirable. During the past few years, members of the District Associations affiliated to the U.P.A.S.I. had very considerably reduced their advances to labour and were still doing so, and there was every reason to believe that the gradual elimination of advances altogether was likely to be achieved without having recourse to any legislation. In the year 1922 the average outstanding advances on plantation labour amounted to Rs. 35-6-0 per acre. Similar returns collected ten years later showed that this figure had been reduced to Rs. 11-5-0 per acre. During the year 1933 further reductions were made and the average advance per labourer was under Rs. 10 per head. Hence the Association considered that there was no necessity whatsoever for any legislation on the subject, and that it was far better to allow the present gradual restriction to continue steadily and naturally. Any sudden and compulsory restriction by legislation would be irksome to both employer and labourer, in fact it would prove a hardship to the labourer to a far greater extent than to the employer.

Indian Factories Act.—As the majority of employers in India had signified their willingness to accept in general the principle of the 54-hour week, both Mr. F. E. James and Mr. H. P. Mody, President of the Employers' Federation of India, asked if the U.P.A.S.I. would support this proposal in the Bill. A reply was made to Mr. Mody that the Association was willing to support the proposal for perennial factories but not for seasonal ones, and it was hoped that the Government of India would continue to take as liberal a view in the future, as in the past, of what constitutes a seasonal factory and that the seasonal definition now in existence should not be altered so as to adversely affect work in tea and rubber factories. The Employers' Federation communicated these views to the Government of India, but at the same time asked that Government would do what they could to ensure that similar legislation was adopted in Indian States as was so strongly recommended by the Whitley Commission in their report. In this connection the Employers' Federation was advised that tea planters in Indian States in South India were not in agreement with reasons given by Mr. Mody in making that recommendation.

As regards the seasonal nature of Tea and Rubber factories, the Government of India point out that the terms of the amendment in clause 4 (1) of the Bill have only been settled after much discussion, and they consider that the present provision will enable those factories, which are genuinely seasonal, all the latitude they need. The 180 days mentioned in the clause are working days so that, even if a factory works for six days a week regularly this will cover a period of seven months' working. The Government of India feel that factories working their operatives for a longer period than this cannot reasonably claim the benefit of the longer week.

The Madras Maternity Benefit Bill.—A summary of views regarding this Bill, including all the opinions received from District Associations and Committee Members, were communicated to the Com-

merce representative on the Select Committee. The Committee met on the 4th May in Ootacamund, but after a short discussion it was decided to adjourn the meeting until after the August Session of the Legislative Council and to ask the Government to obtain reports regarding the detailed working of the Maternity Benefit Acts which have been in force in the Central Provinces and the Bombay Presidency. The Government has also been requested to obtain further opinions from the Chambers of Commerce, Representatives of Factory owners and those employing Industrial Labour and also Trade Unions. These reports and opinions, when obtained, are to be placed before the Select Committee at its next Meeting in August. This will entail the delaying of the introduction of the Bill until the October–November Session of the Legislative Council.

The Bill, as it stands now, is limited to certain factories in particular towns and its whole object is to deal with the industrial labour in towns generally. While agreeing with the general aims of the Bill, this Association has pointed out a number of defects in it which would make it unsuitable for extension to factories in rural districts. It is not intended to oppose the Bill in any way unless any attempt is made to widen its scope in the Committee stage, as the Association is strongly of the opinion that it is impracticable to attempt in one Bill to deal with both industrial and agricultural labour.

IV. DUTIES AND TAXES.

Import Duty on Copper Sulphate and Rubber Hose.—On behalf of the Association, Mr. F. E. James had interviews with members of the Government of India and the Imperial Council of Agricultural Research on this subject. The latter, while sympathising with the request of this Association, found no means to overcome the administrative difficulty in discriminating between copper sulphate used for agricultural purposes and that which is used for industrial purposes. To assist them in pursuing the matter figures were collected from all importing firms as to the quantity of copper sulphate and rubber hose which had been imported for planting purposes only.

V. COMMUNICATIONS.

Roads.

Choladi Bridge—Ootacamund.—The resolution passed at the last Annual General Meeting was forwarded to the Government of Madras with whom Mr. F. E. James discussed the matter. In September, the Secretary, Local Self-Government Department, informed him that the Government had under consideration the general question of the agency which should undertake the maintenance of important classes of roads including Ghat roads, and that the Association's resolution would be given due consideration in that connection.

Nelliampathy District Roads.—In G. O. No. MS. 2164 L. & M., dated 2nd June 1933, the Government of Madras, while recognising the difficulties experienced by the Planters in the Nelliampathy Estates in the matter of means of communication and other amenities in that planting area, regretted that they could not agree to the exclusion of the area from the jurisdiction of the Taluk and the District Boards, nor were they in a position to make any special grants for the roads in that area. The Government pointed out that if the Nelliampathy P.A.

could raise funds to meet a portion of the Capital and recurring outlay involved, it might be able to induce the Local Board concerned to undertake the formation of roads and maintain them with the aid of the contribution made by the Association and any Government grant which may be available.

Railways.

Pollachi-Vanathorai Railway.—This project line is being surveyed again and if the result of the survey is favourable, it is probable that the Legislative Assembly will be asked for a supplementary grant later in the year. It is understood that the South Indian Railway are of the opinion that it is a remunerative project and therefore there should be no further difficulty when the report of the present survey is issued.

Kollengode-Trichur Railway.—With reference to the proposed Kollengode-Trichur line, there is no likelihood of this project being taken up unless an adequate guarantee is forthcoming from the Cochin Durbar and the Madras Government. Under the present financial conditions it does not appear likely that the required guarantees will be given, and it would appear doubtful as to whether this project will be investigated further until an agreement has been reached in regard to the fourth stage of the Cochin Harbour Development scheme.

VI. GENERAL.

Health and Welfare in Plantations.—The Government of Madras have under consideration proposals for provincial legislation to give effect to the recommendations of the Royal Commission on Labour regarding health and welfare on plantations. After consultation with Mr. F. E. James on the various points raised, a letter was written to the Commissioner of Labour, Madras, in general terms regarding some of the proposals and strongly urged that, if Government wishes to proceed with any definite scheme of legislation on the lines of their proposals, before taking any steps in this direction Government should call a representative conference of planters in South India to consider the various issues arising from their proposals.

Subsequently it was noticed that in the Report on Immigrant Labour in the Province of Assam for the year ending 30th June 1933, opinions of officials and non-officials were that it would not be possible for some time to carry out the recommendations of the Royal Commission on Labour owing to the bad financial conditions of both Government and the tea industry, and it was decided to postpone this question until more favourable conditions prevailed. In consequence of this, the Commissioner of Labour was again addressed requesting him to represent this view to the Government of Madras, and to suggest that no action as regards provincial legislation in South India be undertaken at present, and that the matter be held in abeyance until conditions are better, when such proposals might be reintroduced both in Assam and in South India at the same time.

Railway Freight on Copper Sulphate.—At the request of the Advisory Committee of the Mysore Government Coffee Experimental Station, representations were made to the South Indian Railway Company and the Madras and Southern Mahratta Railway with a view to having the railway freight on copper sulphate re-classified so as to come under

the same rates as fertilisers. The Agents of both the railways were interviewed by the Secretary and the whole position was carefully explained, but replies have since been received from both that they cannot see their way to making any change in the present classification. The South Indian Railway, however, stated that if Estates or Estates' Agents can arrange to obtain their supplies in wagon loads, it might be possible to quote station to station rates, provided sufficient quantities of copper sulphate were likely to be moved between specified stations. It would, therefore, appear possible that a reduction on wagon loads would be considered on particular routes if District Associations can show the Railway authorities sufficient volume of traffic from one station to another.

Government Electrical Inspection Charges.—Several complaints having been received regarding the inspection fees which are now being charged by Government for the inspection of electrical plants on estates, the Government of Madras were addressed to the effect that the Association did not consider that such inspections, which were necessary under the Electricity Act, should be paid for by estates, but that if Government decided the fees for inspections were absolutely necessary, it was suggested that every inspection of a complete installation should be considered as final and a certificate given to that effect until an extension of the electrical plant is made when a fresh inspection and a fresh certificate of finality should be issued. The representations made to the Government of Madras received the support of the Madras Chamber of Commerce, but no further information has been received from Government as to what action they intend to take in this matter.

Behar Earthquake Relief Fund.—At the Budget Meeting it was resolved that the Association should open a list to receive subscriptions from all estates and planters in South India. Up-to-date Rs. 11,500 have been received and remitted to the Viceroy's Fund.

VII. TEA.

South Indian Tea Crop, 1933.—The following Statement shows the crops of Tea from each District during the year:—

		Lbs.
Anamallais	.. ..	11,420,427
Nilgiris	.. ..	6,928,535
Nilgiri-Wynaad	.. ..	5,250,655
Wynaad and Malabar	.. ..	5,432,634
Cochin	.. ..	108,299
Coorg	.. ..	209,423
Mysore	.. ..	186,699
Central Travancore	.. ..	11,149,686
Kanan Devans	.. ..	13,714,882
Mundakayam	.. ..	1,833,245
South Travancore	.. ..	2,909,088
Total	.. ..	59,143,575

Consumption of Tea in Southern India.—The figures received from the ports of the Presidency and Travancore show that during 1933, the total exports were 48,382,497 lbs. which would leave a remainder.

when compared with figures of production, of 10,761,078 lbs. available for consumption in this country. The following table gives the production and apparent local consumption for the past 12 years. This, of course, does not allow for any South Indian Tea which may have been exported out of India over land frontiers, but it is believed that so far as South India is concerned this trade is negligible. Nor does it give any allowance for stocks on hand but as, normally, the known stocks are approximately the same at the commencement and close of every year, it does not affect the position of the amount of tea available for consumption in India.

		Production	Local Consumption.
		Lbs.	Lbs.
1922	..	36,231,287	6,713,366
1923	..	43,538,648	6,321,706
1924	..	46,161,408	8,207,006
1925	..	47,975,955	4,027,107
1926	..	51,065,004	6,662,284
1927	..	52,387,595	4,773,551
1928	..	55,760,603	7,113,469
1929	..	58,517,586	6,233,341
1930	..	53,802,044	6,364,635
1931	..	55,573,378	6,350,193
1932	..	62,318,745	7,591,828
1933	..	59,143,575	10,761,078

These figures are necessarily only approximate as returns collected from non-members of the Association can in no way be regarded as complete, and the production on the areas from which no returns could be obtained have had to be estimated.

The Indian Tea Control Bill.—As far as British India is concerned, legislation to give effect to the Tea Regulation of Exports scheme was passed through the Legislative Assembly and the Council of State in September last, and came into force as from the 15th November 1933.

The work in connection with the scheme has been carried out by the Tea Licensing Committee in a thoroughly satisfactory manner, and the steadiness of tea prices during the past half year has proved that the International Agreement for the restriction of tea exports has worked out satisfactorily and come up to expectations.

Restriction of Tea Output.—In order to obviate the likelihood of India being swamped with unsaleable tea, some 94 per cent. of the tea producers in India voluntarily agreed to a restriction of output scheme formulated by the Indian Tea Association. Considering that the scheme was a voluntary one, it worked well, but it soon became evident that if the restriction of crop was to be continued during the period of export regulation, it would have to be assured by legislation. As the vast majority of producers of tea in India were in agreement with this idea, the Government of India has been approached with a view to introducing legislation for the restriction of crop in India, and the Bill will probably come before the next session of the Legislative Assembly. In the meantime producers have agreed to another year of voluntary restriction in anticipation of the legislation becoming effective in ample time before next season.

Tainted Tea Samples.—Every effort has been made by this Association and the Indian Tea Association both in Calcutta and London,

to ascertain the cause of so many tea samples becoming badly tainted before being received in London. In spite of every endeavour and the full co-operation of the Postal Department and the Shipping Companies, the exact reason for the samples becoming so badly tainted on frequent occasions has not yet been ascertained. Every precaution is being taken both in land and sea transport to see that samples are stowed away from possible sources of contamination, but in spite of all the care that has been taken, the trouble still exists.

Tea Freights.—Some members of the Association drew attention to the fact that the freight on tea to all ports is being increased by 5% per shipping ton as from the 1st of June. On reference being made to the Indian Tea Association, Calcutta, it was learnt that it had been arranged there with the Tea Shippers to enter into a new agreement with the Conference Lines for the carriage of tea to London from Calcutta and Chittagong for a period of three years from 15th May, 1934. The new agreement provides for a nett rate of freight of 45 sh. per ton of 50 cubic feet, as compared with 40 sh. under the previous agreement. The General Committee of the Indian Tea Association decided not to take any exception to the proposed increase of 5 sh. per ton as, apparently, they regarded the increase justified.

The Indian Tea Cess.—From the 16th September 1933, the rate of cess payable on tea produced in India and exported from any customs port beyond the limits of British India or to Aden was increased from 6 annas to 8 annas per 100 lbs. which is the maximum permissible under the Indian Tea Cess Act.

At the half-yearly meeting of the Indian Tea Cess Committee, held on the 2nd March 1934, it was resolved that, in order to provide sufficient funds with which to expand the work of the Indian Tea Cess Committee to its fullest extent in India and to prosecute efficiently the campaign in America and the United Kingdom, and for the purpose of distributing fairly the incidence of the Cess amongst all producers in India, the Indian Tea Association be requested to consider in consultation with the various associated interests concerned the desirability of approaching the Government of India for an amendment of the Indian Tea Cess Act fixing the maximum rate at Re. 1 on every hundred pounds of tea produced in India.

The Sterling Companies represented on the South Indian Association in London unanimously agreed to support the proposal. Opinions received from Rupee concerns in South India showed that 19,709 acres were in favour and 7,091 acres provisionally in favour of the proposal. No replies were received from 18,752 acres which, under the terms of the reference, had to be taken as not opposed to the scheme. 9,448 acres definitely expressed an opinion against the enhancement of the cess.

As an overwhelming majority were in favour of the proposal of the Indian Tea Cess Committee, the Indian Tea Association addressed the Government of India on the 14th June with a request that the Indian Tea Cess Act be amended so as to increase the maximum rate of cess to Re. 1 per 100 lbs. and to make the cess payable on all tea produced in India as defined in Clause 12, Chapter II, of the proposed Bill for the Restriction of Tea Production in India. These proposals will involve the revision of Clause 3 of the Indian Tea Cess Act of 1903, as amended by Act I of 1921, while a further amendment will be necessary if

Clause 5 (1) which relates to the method of collection of the cess. In this connection Government has been requested to adopt a proposal that the Committee, to be set up under the proposed Indian Tea Restriction Act, should be empowered to collect the cess and pay the proceeds to the Indian Tea Cess Committee, and it is for this reason that Government has been requested that the two Bills should be introduced simultaneously—the one providing for the control of production and the other for the amendment of the Indian Tea Cess Act as now proposed.

VIII. COFFEE.

Southern India Coffee Crop.—From the Indian Coffee Statistics, issued by the Director-General of Commercial Intelligence and Statistics, Calcutta, who compiles his figures for the period 1st July to 30th June, the following Statement gives the figures for the last 12 years:—

			Lbs.
1920-1921	..	..	22,453,659
1921-1922	..	..	20,487,926
1922-1923	..	..	25,459,428
1923-1924	..	..	19,145,403
1924-1925	..	..	30,475,644
1925-1926	..	..	22,106,717
1926-1927	..	..	34,281,995
1927-1928	..	..	35,563,321
1928-1929	..	..	27,767,035
1929-1930	..	..	39,423,908
1930-1931	..	..	32,972,967
1931-1932	..	..	33,613,700

Coffee Cess.—The proposal to arrange for the recovery by Brokers and Agents of a cess of 8 annas per cwt, on all East Indian Coffee sold in the London Sale Room, which was the subject of a resolution at the Annual General Meeting last year, proved to be impracticable, and hence the question of approaching the Government of India to institute legislation to levy an eight anna export cess for propaganda purposes was again explored. Owing to the co-operation of the Mysore Government in particular it was possible to give this proposal a more definite form, and on the 27th of June, the Government of India were addressed by the Association with a request that Government consider the question of legislating for a coffee export cess for the purpose of providing money for improving the marketing of Indian Coffee by propaganda and for scientific research. Out of a total area of 162,764 acres of coffee in South India (according to Statistics India 1932-33) only 3,563 acres definitely expressed their opinion as being against the proposed cess. The matter is now being considered by the Government of India.

Quality of Coffee.—At the last Annual General Meeting Dr. Leslie C. Coleman was asked to put up a scheme with reference to scientific investigation into the quality of coffee and to ascertain from the Mysore Government if such an investigation could be undertaken in the Mysore Government Agricultural Department provided the extra expense was met by the U.P.A.S.I. Dr. Coleman obtained the permission of the Mysore Government to outline the proposal, the cost of which was estimated to be about Rs. 4,000 per annum for five years. On this scheme

being circulated to Coffee District Associations, however, the question of the expense to be incurred proved a stumbling-block. Other avenues to undertake this investigation were explored and various proposals made, and a considerable amount of correspondence took place between the Association, the Imperial Council of Agricultural Research and the Indian Trade Commissioner in London on this subject.

Most of the suggestions put forward proved impracticable but the latest one received from the Indian Trade Commissioner, namely, that a preliminary investigation might be undertaken by the British Association of Research for Cocoa, Chocolate, Sugar, Confectionery and Jam Trades, which would last for one year and would cost £600, is now under consideration. In the first place, the investigation would consist of a series of chemical analyses carried out in conjunction with the results of tasting by professional coffee tasters. Such an enquiry would stop at the state of the report on these chemical analyses, and further investigations as to the most suitable types of coffee plant, methods of cultivation, etc., will have to be carried out in India.

Recently our Coffee Scientific Officer has suggested that a definite progressive investigation, as originally suggested by Dr. Coleman, might be expected to give better results if pursued on the same lines as our Tea Scientific Department have been working in their investigation into the quality of tea. Further opinions on these suggestions are being obtained from competent authorities, and it is hoped that a definite scheme will shortly be in readiness to place before our Coffee members.

Coffee Curing.—Two resolutions were passed at the last Annual General Meeting, one asking the Coffee Curers to see if they could not reduce the charges by means of using cheaper labour and more efficient methods, and the other suggesting an alteration in the grading of coffee. As regards the former, the Coffee Curers explained that any concession in the rates could only be accompanied by a reduction in the standard of garbling. Such a reduction would not be in the best interests of planters. However, they were agreeable to make a reduction of Rs. 5 per ton in the case of the rate for "full curing ex bags" of Robusta Cherry, only provided that the process of garbling be modified to cover only the elimination of Blacks and Bits.

With reference to sizing, it was resolved to retain the present methods as these were well known in the particular markets to which South Indian coffee is sent, and any drastic alteration might prove detrimental from the buyer's point of view.

Shipment of Coffee from Bombay.—The question of shipment of early coffee crop from Bombay and the delays experienced there last season was taken up both with the Shipping Agents in Bombay and by the South Indian Association in London with the P. & O. Steam Navigation Co., Ltd. The latter expressed their earnest desire to render every possible assistance to shippers, and planters were requested to give early notification of any intending shipments to be made through Bombay so that the Agents there might be able to ensure tonnage space being available.

In this connection the Shipping Lines on the West Coast pointed out that their aim was to make Mangalore the last loading port of all vessels and in such circumstances the voyage to London takes about 26 days. The Agents of the Clan and Ellerman Lines subsequently informed us that they were in a position to offer more frequent sailings.

homewards from Mangalore during the next season, provided they could rely upon the full support of coffee growers, and were confident that they could jointly provide sailings approximately every week, and in most cases the vessels would sail direct to London and take only about 25 or 26 days over the voyage.

British Empire Producers' Organisation.—In connection with Coffee propaganda, the British Empire Producers' Organization approached the South Indian Association in London with regard to the formation of a Coffee Section of that Organization. Mr. H. R. Lockie attended some meetings of the British Empire Producers' Organization, on behalf of South Indian Coffee Planters and a scheme was formulated for starting a Coffee Section with the object of acting as a central committee to co-ordinate the policy of Empire Coffee growers and to carry out liaison work between producers and other interests concerned with the coffee trade. The income of the British Empire Producers' Organisation is derived from subscription of Primary Producers in various parts of the Empire for the benefit of their own products, and thus there are no funds available to assist the development of the Coffee Industry. A sum of £200 is required for the proposed Coffee Section to start a preliminary programme, which has been drawn up, to cover office accommodation, clerical services and other out-of-pocket expenses, and it was suggested that this sum might be contributed by the Empire producing countries in proportion to their exports of coffee. Under the scale drawn up, the amount asked for from South India is £36. It was subsequently resolved to subscribe the amount asked for as the South India contribution towards the proposed Coffee Section, the United Planters' Association and the Coffee Growers' Association agreeing to share the expenses equally.

IX. RUBBER.

Production in Southern India.—From figures supplied to the Association from the ports of shipments, the following statement shows the export of rubber from South India from 1923 to 1933; the production figures for the same years as compiled by the Director-General of Commercial Intelligence are also given.

	Shipment of Rubber from South India. Lbs.	Production as per Indian Rubber Statistics. Lbs.
1923	.. 8,411,018	9,470,996
1924	.. 10,151,636	9,476,822
1925	.. 13,950,915	12,193,411
1926	.. 14,628,915	13,414,874
1927	.. 16,042,831	14,682,264
1928	.. 16,823,761	15,946,913
1929	.. 17,222,790	16,852,657
1930	.. 15,595,518	14,392,301
1931	.. 10,922,602	11,670,715
1932	.. 2,535,145	1,802,895
1933	.. 4,422,638	

Rubber Restriction of Exports.—The formal Agreement embodying the terms and provisions of the Rubber Regulation Scheme was signed by the appointed representatives in London on the 28th April

1934, and the Inter-Governmental Agreement between the Governments of France, the United Kingdom, India, Netherlands and Siam on the 7th May 1934. To give force to this Agreement in this country, the Government of India issued a notification under the Sea Customs Act so that the restriction might come into force on the same day as in other countries, namely the 1st June 1934. To bring the whole scheme into operation in British India, legislation has to be taken up in the next session of the Legislative Assembly and will probably become law before this report is circulated.

In the meantime pending the actual appointment of the Licensing Committee, the Government of India have authorised the present Ad Hoc Committee, appointed by this Association to deal with all the preliminary work in connection with the scheme, to collect the necessary figures from rubber producers in South India in order to be able to allot export quotas to every producer. The headquarters of the Rubber Licensing Committee is the office of the Controller, Malankara Buildings, Kottayam P.O., Travancore.

In this connection, as it was understood that the Government of Ceylon intended to prohibit the importation of rubber into Ceylon during the last two weeks of the month of May, this Association requested the Government of India to ask the Government of Ceylon to remove this embargo provided that all exports of rubber from India to Ceylon were covered by Certificates of Origin from the Indian Customs. As the result of the representation of the Government of India, the Government of Ceylon in view of the arrangements made in India for the issue of Certificates of Origin countersigned by Collectors of Customs for all rubber exported to Ceylon after the 15th May 1934, did not proceed with the contemplated prohibition of imports.

A further point has since arisen in respect of the Ceylon export cess on rubber, it having been ruled that all South Indian Rubber imported into Ceylon and re-exported was liable to pay the Government of Ceylon export cess of 25 cents per 100 lbs., and also the Ceylon Research cess amounting to 12½ cents per 100 lbs., both these cesses being in addition to the Indian export cess to cover the expenses of the scheme in India. The Government of India was addressed on the 13th June 1934 with a request to approach the Government of Ceylon with a view to South Indian Rubber being exempted from these extra cesses, as the imposition of them places all South Indian Rubber exported to Ceylon at a very serious disadvantage, and to request that no Ceylon export cess be levied on South Indian Rubber imported into Ceylon under Certificates of Origin and re-exported from there, as this rubber does not come under the export restriction scheme for Ceylon grown rubber.

X. SCIENTIFIC DEPARTMENTS.

Tea.

Staff.—During the period under review there has been no change in the staff of the Tea Scientific Department.

Tea Scientific Department Sub-Committee.—During the year two meetings of this Committee were held, one in June 1933 and another in February 1934.

Work at the Tea Experimental Station.—The Scientific Officer has issued a full report on the work of the Station which is being printed and circulated to all members.

Coffee.

Staff.—Mr. W. W. Mayne returned from leave about the middle of October 1933. Full details of the work carried out by the Coffee Scientific staff will, as usual, be given in the Annual Report of the Department.

Mysore Government Experimental Station, Balehonnur.—At the instance of the Mysore and Coorg Planters' Associations, this Association approached the Director of Agriculture, Mysore State, with a proposal that the present arrangement under which the Coffee Scientific Officer of the U.P.A.S.I. works on the Mysore Government Experimental Station, under the direction of the Mysore Department of Agriculture, should be continued. Further the Mysore Government were requested to permit the Association to erect quarters for our Scientific Officer on the Government Station land, and partly on a piece of land adjoining the station, which Mr. H. Browne has generously consented to present for that purpose. The Committee have agreed to proposals put forward in this connection by the Mysore Government and the work is to be put in hand as soon as revised plans and estimates are completed.

Rubber.

Staff.—Mr. H. B. Macpherson continued to act as Supervisor of the Rubber Station until he went home on furlough at the end of May 1934 when his duties were taken over by Mr. G. McPherson. The Station has been merely kept up on a care and maintenance basis, and the total cost for the year amounted to Rs. 4,068-15-4, including full allowance for depreciation which has been drawn from the Rubber Reserve.

COONOR,
28th July 1934.

R. FOWKE,
C. R. T. CONGREVE,
J. S. B. WALLACE,
L. GARRETT,
ERIC HALL.

THE CHAIRMAN'S ADDRESS.

The Chairman, Mr. R. Fowke, then delivered the following Address:—

YOUR EXCELLENCIES, LADIES, AND GENTLEMEN,

On behalf of the members of this Association I have great pleasure in welcoming Their Excellencies and the other distinguished visitors to this Meeting.

It is a great honour to the planting community to have the presence of His Excellency the Governor here to-day. (*Loud Applause*). This, however, is specially emphasised in that His Excellency has recently been acting as Viceroy and Governor-General of India during the absence of Lord Willingdon. It is the first occasion on which we have had an ex-Viceroy with us at our Annual Meeting, and in congratulating His Excellency on having occupied the highest office under the Crown in this Country, we wish to express the great pleasure it gives us to have him with us. His Excellency will shortly leave for England on the completion of his term of office as Governor of Madras. During the period of his administration we have always found him deeply interested in the welfare of the planting community. His wise, efficient and sympathetic administration, has guided the Presidency successfully during five most difficult years. Both as Governor and as a friend we shall miss him, and we wish His Excellency and Lady Beatrix Stanley God-speed, and a happy and restful holiday, which they have so richly earned. It is a happy augury for the future of this Association that the opening of this Conference by His Excellency, coincides with the first Meeting in the Association's recently acquired permanent Headquarters here in Coonoor.

Last year when I had the honour of addressing you, it was at a time when the world economic situation, and the condition of the products we represent, were in a state of great depression. It is gratifying to see the gradual but steady upward trend of expansion in the economic sphere. Wholesale prices show an upward tendency, rail receipts are increasing, and exports in certain directions show an improvement of considerable magnitude.

Last year I referred to the Ottawa Agreement. The Report on the first year's working (1933-34) is now available. If the Report is to be judged impartially, it is bound to lead to the conclusion, that the value of the preferences given to India in the United Kingdom market, far outweighs the value of the preference given to the United Kingdom by India.

The political conditions in India have been quiet during the year. The Joint Select Committee has almost completed its labours and its Report is expected to be published in November. The new Government of India Bill will shortly afterwards be introduced into Parliament and will probably be on the Statute Book before the end of the Summer of 1935. In the meantime the Civil Disobedience movement has been officially called off, and the Congress has announced its intention of contesting the elections in November for the Legislative Assembly. It is to be hoped that these developments signify a departure for good from the useless and harmful methods adopted in recent years, which have done so much harm to the cause of India's political freedom. At present there is considerable evidence to show that a new spirit of responsibility,

is growing in certain sections of the population, and that when the new Reforms are put into operation there will be sufficient constructive co-operation in this Country to make them a success.

As far as the Tea Industry is concerned the passing of the Tea Control Act by the Legislative Assembly in November last, has been the outstanding event in the year under review. The Tea Export Restriction Scheme has been in operation, and as a result, prices of tea recorded a great improvement in 1933-34 as compared with recent years. India's export allotment by Sea for the financial year 1933-34 was fixed at just over 320 million pounds. For the year 1934-35 it has been increased to 330 million pounds. The total Indian exports during the year 1933-34 amounted to about 318 million pounds as compared with about 380 million pounds in the preceding year, a fall of 16%.

Alarm was expressed by a certain section of the smaller Companies and private Proprietors, on the introduction of the Regulation of Exports, and fear was expressed that it would operate hardly on them. I venture to say that the Regulation has worked smoothly, and that the smaller Companies and Owners have benefited to a large degree, both by the increased price of tea and the sale of quotas. The success of the Scheme has been a complete vindication for its originators, and has proved the means of saving the Industry at the most critical period in its existence.

I will now touch for one moment on the proposed legislation to regulate the production of tea in this Country. With unrestricted production, and the consequent flooding of the Indian market, the price of tea will be forced down to an uneconomic level, and following the natural law of supply and demand, production will be curtailed until prices again rise due to shortage. This process will continue greatly to the detriment of the Producer. To obviate these fluctuations in market prices, and to stabilise the Indian tea market, a Bill controlling production to replace the voluntary restriction scheme now in operation is receiving the consideration of the Government of India. In view of the fact that Producers of tea, to the extent of nearly 369 million pounds, representing 93.6 of the Industry, have given their support to the control of output by legislation, it is to be hoped that Government will accede to the wishes of the majority, and introduce legislation before the end of the financial year.

At the moment the general economic state of the Tea Industry is satisfactory, and will probably remain so until the end of the restriction period in March 1938. Do not let us however become lulled into a false sense of security. Immediately Restriction is withdrawn, the vast potential production in the principal tea growing countries, estimated at over 1,051 million pounds, will be thrown on to the world's markets. To realise the position more fully, it must be remembered that the total exportable quota from the principal producing Countries in 1934-35 is just over 700 million pounds.

It is obvious that during the remaining three years of restriction every effort must be made to put our house in order, or we will find ourselves in the same position as we were before the introduction of Restriction.

A Central Control Board in London is being formed to deal with the combined propaganda of the principal producing countries to increase the consumption of tea. This Board will study such questions as:-

expansion of old markets, the discovery of new, and the re-opening of the Russian market, which at present is only absorbing one-fifth of its potential consumption.

As regards India, an intensified propaganda campaign is being instituted by the Indian Tea Cess Committee. This body fully realises the immense possibilities that exist in this vast country to increase consumption. In order to carry out such a campaign, increased funds are essential, and it is suggested that the amount necessary be raised by increasing the cess, and bringing within the scope of the Act all tea produced in India.

With regard to Rubber, during the year under review, the proposals for the regulation and control of Rubber production and export, which have been under discussion for many months, have resulted in an International Agreement.

No Territory where there are organised plantation rubber interests has been excluded from the Agreement. An International Rubber Regulation Committee fixes from time to time the percentage of the allotted quotas which the Territories may export. The Government of India expressed its willingness to implement the Agreement by legislation. On the 7th May the Agreement was formally signed by the India High Commissioner in London. In signing this Agreement he made the following reservations:—

- (1) The accession of the Government of India is subject to the agreement and co-operation of Rubber producing "Indian States" in India, in which area the Government of India has no power to maintain or enforce the Restriction. The terms of the Inter-Governmental Agreement have been brought to the notice of the States concerned, and the Government of India has every reason to believe they will act in accordance with its provisions.
- (2) In so far as legislative action will be necessary to implement the terms of the Agreement, the accession of the Government of India is subject to the approval of the Indian Legislature.

The control of exports became effective as far as India and Burma are concerned as from the 1st of June 1934, by the issue of a Notification under the Sea Customs Act. Licensing Committees were formed for Burma and South India, and have been in operation since that date. Legislation was introduced in the last Session of the Assembly and passed.

Our thanks are due to the Government of India for their willingness to assist the Industry by giving legislative sanction to a Scheme which is to be worked by the Producers, subject to the safeguarding of the legitimate interests of the consumer. Our thanks are also due to the Durbars of Travancore and Cochin, who have been most helpful and courteous in all negotiations which have taken place. We hope that they will be willing, without further delay, to carry out the necessary legislation on the lines of the Government of India Act, to implement the Agreement in their Territories.

One word must be said about the quota, which has been fixed on the average annual export of rubber during the years 1929 to 1932, plus an allowance for immature areas.

In arriving at the figures, the International Committee appears to have omitted to take into account exports from Alleppey in Travancore. This omission affects prejudicially the figure of basic quota for India (excluding Burma). There is also a further complaint, that in fixing the allowance in the Quota for immature areas, the acreage taken from the Statistical Statement of the Government of India for the year 1932 was not up to date, as far as acreage under Rubber in Travancore and Cochin is concerned.

I do not wish to say anything more on this matter, except that these points have been given the utmost prominence and the Government of India have undertaken to represent the grievances to the International Committee, through the High Commissioner of India, as soon as the present enquiries in Cochin and Travancore are completed.

I am sure you will all sympathise with the position of the Producers in those States, and I may say that our representative in Simla, Mr. James, has made very strong representations on the matter for which we are duly grateful. (*Applause.*)

To touch on Coffee, the clouds on the economic horizon have not yet lifted, and prices if anything have been lower than during the previous season.

In the Report of the Government of India on the working of the Ottawa Agreement, the following paragraph appears in regard to Coffee:—

"Though Empire Countries as a whole have profited by the 'preference, India has not improved her position in the United 'Kingdom market'".

Various reasons are given for this (1) Indian Coffee being generally a superior quality is mainly required for purposes of blending, (2) Indian Coffee has been showing signs of deterioration in the last few years, (3) East African Coffee has an advantage, due to the earliness of the crop movement in Kenya, as compared with the opening season in India, (4) Little is done in the way of propaganda to push Indian Coffee in the United Kingdom market.

With regard to the fourth point, I am glad to say that the Coffee interests have now agreed to levy a Cess on exports, the proceeds of which are to be utilised for the purpose of propaganda, Scientific Research, and the marketing of Coffee. Representations have been made to the Government of India for their assistance in the matter, and it is to be hoped that a definite scheme will be agreed upon during this week. The administration of the Funds by a Coffee Board, much on the lines of the Central Cotton Committee, is being considered and the matter will no doubt form a subject of discussion at this Meeting.

The important question of "Coffee Quality" is under consideration by the Scientific Department with a view to a bio-chemical investigation into the matter, and the Report of the Scientists will be placed before this Meeting.

On your behalf, I am glad to welcome here to-day Mr. Livingstone, the expert Adviser in Marketing to the Imperial Council of Agricultural Research, whose advice and assistance will be of the utmost value to the Industry, and we await his observations with interest.

I have touched on the main products of our Association. The prospects for the future look healthier than they have done for some years past, and I am sufficiently optimistic to think that we are about to enter into a period of gradual prosperity, after the lean years through which we have just come.

The Tea Scientific Station, under the able administration of Doctor Shaw and his Assistant Mr. Jones, assisted by the Entomologist and Mycologist, is continuing its investigations. The information derived has been given in considerable detail in the Annual Report of the Department and several important Bulletins are about to go to press and will shortly be available.

The Coffee Scientific Department remains in the capable hands of Mr. Mayne, assisted by Mr. Subramanyam. The co-operation of this Department with the Mysore State Department of Agriculture at the State Experimental Station has continued most harmoniously during the year.

Progress has been made during the year in the study of the various diseases. A point, hitherto unsuspected, in connection with coffee that has recently come to light during investigation, is the influencing factor of fermentation on "quality" in the finished product. Further investigations on these lines are being carried out by the Department.

The publication of a Bulletin on Borer by the Entomologist to the Mysore Government, fills a very important gap in literature on coffee.

The Rubber Scientific Station, owing to depression, has remained on a care and maintenance basis during the past year. Some decision as to its future will no doubt be arrived in the course of this Conference.

Our sincere thanks are due to the Madras Government for the grant made to the Association's Scientific Department, and a study of the Reports will convince the Director of Agriculture, of the useful work being carried out.

While on the subject of the Scientific Department, I cannot let this opportunity pass without placing on record our appreciation of Doctor Coleman's vast contribution to agriculture during the many years he served as Director of Agriculture to Mysore State. He attended many of our Annual Meetings and his sound advice and cheery personality will be much missed. To his successor, Mr. A. K. Yegnanarayana Iyer, we tender a hearty welcome and assure him the same measure of co-operation as we extended to his distinguished predecessor. (*Applause.*)

The most cordial relations have been maintained with our sister organisation, the South Indian Association in London, and to the Chairman, Mr. Pinckney, and his Committee I tender my thanks for the assistance so freely rendered.

The contribution from members of the United Planters' Association of South India to the Behar Earthquake Relief Fund, you will be pleased to hear, reached the handsome total of Rs. 12,400.

Since our last Meeting I have to record with deep regret the deaths of the following members of our community:—

GEORGE ROMILLY—At Winchester on the 24th December, 1933, at the age of 82. He was for many years planting in the Wynaad and

attended the first Conference of Delegates in 1893. Up to 1904, he attended nearly every Annual Meeting. In 1893, he was nominated first Planting Member in the Legislative Council. He was Chairman of the Association from 1897-1899 and again in 1903-04.

MONTAGUE JAMES WOODBRIDGE—At Bangalore on the 31st December, 1933, at the age of 67. He came to Mysore in 1899 and was Chairman of the South Mysore Association on more than one occasion.

ROBERT BAKE—At Coonoor on the 4th January, 1934.

WALTER WINN GALIFFE—At Bangalore on the 9th January, 1934. He came out in the seventies to Mysore.

CHARLES PHILLIPS REED—At Bangalore on the 20th January, 1934, aged 78. He was one of the veteran Planters of Mysore.

GERALD AINSLIE MARSH—At Ooty on the 31st January, 1934, at the age of 71. He was known to all his numerous friends as "Carver," his lovable disposition, geniality and thorough sportsmanship endeared him to all. He came out to the Nilgiris in 1881 and in 1897 went to the Anamallais opening the first clearing in that District and was its pioneer in the true sense of the word. He was Chairman of the Anamallai Planters' Association for several years.

CHARLES EDWARD ABBOTT—In England on the 4th January, 1934, aged 74 years. He came to India in 1886 and spent 48 years in the Wynaad. He was present at the Annual Meetings on 15 occasions between 1904 and 1921. He was three times Chairman of the United Planters' Association and Planting Member in the Madras Legislative Council in 1908.

HARRY STARK DICKENS—Of the Tipperary Estate, Yercaud, on the 30th March, 1934, aged 56.

JOHN MCKENZIE—At Bangalore on the 2nd May, 1934, aged 84. He came out in 1869 and planted in the Nelliampathies, S. Coorg, Wynaad and Nilgiris.

CAPT. EARNEST H. A. TRAVERS DRAPES—Of Marylands Estate, Yercaud, on the 25th May, 1934, was for many years Chairman of the Shevaroy Planters' Association and Member in Waiting on the Executive Committee.

ASHTON HAMMOND—In Western Australia on the 16th May, 1934, aged 52.

C. F. R. MINCHIN—In Ooty on the 23rd June, 1934. He came out to the Nilgiris in 1890.

HENRY ROBERT CRAIG—On the 20th June, 1934, in England, at the age of 91. He was a pioneer Planter in Coorg.

BROOKE MOCKETT—In England on the 15th August, 1934, aged 91 years. He came out to Mysore in 1865 and retired in 1896.

C. E. MARTYN—At Ootacamund on the 31st August, 1934. He owned Bellevue Estate near Naduvattam in Nilgiris. He retired from actual planting many years ago and was well-known by all frequenters of the Ootacamund Club where he was a resident member.

To the relatives of all these, I tender our sincere sympathy and condolence in their loss.

I apologise for the inordinate length of my address and must thank you for the patient hearing you have so kindly accorded me. The many important events that have transpired during my period of office form my excuse.

To Mr. James, Col. Brock, the members of the staff, and last but not least, to the members of the Executive Committee, I tender my sincere thanks for their whole-hearted co-operation, assistance and advice, which, without exception, has always been placed most ungrudgingly at my disposal. (*Loud and prolonged applause.*)

The Chairman:—I will now ask His Excellency the Governor to address the Meeting.

HIS EXCELLENCY THE GOVERNOR'S ADDRESS.

His Excellency Lt.-Col. the Right Hon'ble Sir George Frederick Stanley, P.C., G.C.I.E., C.M.G., delivered the following address:—

MR. FOWKE, LADIES AND GENTLEMEN,

I deem it a very great privilege that it has fallen to my lot to have the honour of opening the first annual meeting of the U. P. A. S. I. held at its new headquarters in Coonoor. I feel sure that many advantages will be gained from having your headquarters in such a central and readily accessible place and in a very important planting district. Lady Beatrix Stanley and I are extremely grateful to you, Sir, for the very kind words you have said about us and I can assure you that among our pleasantest recollections of our time in India will be the many friends we have made among the members of the planting community and the great kindness we have received from them. Our visits to your areas, coinciding as they often did with unusual rainfall, may have been auspicious from the point of view of the cultivation, but were not always so for our pleasure and comfort. I well recollect our visit to the Anamallais last year when we were introduced to a mist which, I think, easily rivals that of Simla in density and which chose to give its nearest imitation to a London fog when I was about half-way up the Grass Hills (*Laughter*), but on this and all other occasions, any defects in the weather have been more than compensated by the kindness and hospitality extended to us.

The two most important events of the year have, of course, been the passing of the Tea Control and the Rubber Control Acts in the Central Legislatures. In the negotiations which led to the placing of these Acts on the Statute Book, the Government of Madras throughout gave their cordial support. In doing so some sacrifice on the part of the Government was involved, as the prohibition of extension of cultivation (beyond very narrow limits) entailed a certain loss of revenue—that is to say, land revenue, since "developed land" pays a considerably higher assessment than "undeveloped land," and also the market value usually collected in instalments from the date of assignment of land. Such sacrifice they felt was more than recompensed by the object of the restriction in placing the planting industry on a sounder footing. I should like, however, to take this opportunity of endorsing what you, Sir, have said regarding using the period of restriction for the purpose of putting your house in order. Unless this is done, restriction will have been only a temporary palliative and no cure for the ills which beset the industry in pre-restriction days.

At the time when rubber was in the doldrums there was a demand for the complete remission of land revenue on rubber estates and I find that Mr. Langley, in his speech last year, referred to the "unsympathetic attitude" of the Government in refusing the demand. Since with the rise in the price of rubber the demand no longer exists, I need not detail here what considerations weighed with the Government in making their decision, but there is a broader aspect which I should like to mention. The effect of the demand was that a special interest should receive a special concession over and above the concessions granted to the general agricultural interests. Gentlemen, at a time when the cry is all for safeguards of various kinds, particularly against adverse commercial discrimination, surely the demand, if granted, would have set up a most awkward precedent of giving favourable discrimination on behalf of a special interest, which might have been used on behalf of many other interests in the future!

I am afraid that, owing to lack of knowledge, I am precluded from giving you any precise indication as to the time-table for the Reforms, and I can only say that I do know that every effort will be made to expedite the passing of the new Government of India Act as soon as the Joint Select Committee's Report is published, which I hope will be quite soon. I feel sure that the Government can rely on the support of your great industry, on which the welfare of thousands of Europeans and Indians depends, to give their loyal and unstinted support to the Government of the future. The knowledge that I have had that unvarying support behind me during the past five years has considerably lightened my task and encouraged me in the performance of my duties.

Gentlemen, I wish this Conference all success in its deliberations, and the planting industry many years of unalloyed prosperity. After such happy years in India the farewells which Lady Beatrix Stanley and I have now before us are very difficult to say, but I hope that we shall see at home our many planting friends and I can assure you all that our interest in your welfare will be deep and abiding. (*Low and continued applause.*)

The Chairman:—I will now ask Mr. James to address the meeting.

THE MADRAS POLITICAL REPRESENTATIVE.

Mr. F. E. James:—Mr. Chairman, Your Excellency, Col. Plowden, Ladies & Gentlemen,—I think it is due to me to say at the outset that I did my best to escape the responsibility of having to make a speech this morning, but I was ordered by your Chairman to do so on the ground that it would not be proper to deviate from your customary procedure at the opening of this meeting. First of all, I should like to refer to the work in the Central Legislatures and particularly to the work in the Assembly which has just closed its last session. The lifetime of this Assembly has continued for a period of four years, and I think I am justified in claiming that its constructive work on behalf of India is far greater than that of any Assembly which has hitherto operated since the present Reforms were brought into existence. Allow me just to tell you one or two interesting facts. Apart from its routine work in considering resolutions, questions, adjournment motions, statutory and other reports, it has passed in all 160 Bills! This works out at 40 Bills a year—not a bad average. Of these no less than 18

granted or continued protection to specific industries; 9 dealt with other tariff problems; 8 amended the Incometax Act; 6 ratified International Conventions to which India was a party; 8 dealt with improving the conditions of the working classes; 8 were necessitated by India's constitutional development; and 8 were concerned with the defence of the State against terrorist and other revolutionary movements. This record is one which might be envied (if legislation is a matter of envy) by many legislatures in the world. It does emphasise the constructive nature of the work which the co-operators and the constitutionalists have done throughout this period. Economic and constitutional problems have tended to dominate the legislature increasingly during the last two or three years. Safeguarding and protective measures, Excise and Taxation Bills, Bills for the regulation of the export and production of certain commodities, Bills fixing prices—all these show the increasing part which the State has to play in the economic life of the country. The Medical Council Bill, the Reserve Bank Bill, the Indian Army Bill, and the Indian Navy Discipline Bill are all steps towards India's ultimate constitutional development as a Dominion. The creation of a Royal Indian Navy, an Indian Reserve Bank and a Dominion type of Commission for the officers of the new Indian Army—all these are matters of very great significance.

If this record is placed side by side with the record of Mr. Gandhi and the Congress during the past four years, the contrast is startling. The futility and waste of the policy of revolution and non-co-operation are universally admitted. No wonder the leaders have decided, after much trumpeting and flag-waving, to retrace their steps and fight the next Assembly elections. It is an important step, but its significance should not be over-emphasised. It does not necessarily mean a change of heart. The Congress programme is still one of negation in constitutional matters and an approximation of communism and expropriation in economic matters. Nor must it be forgotten that although the Nationalists and the Congress are fighting as separate parties, being divided on the communal issue, in practice in the Assembly, they will form one party for all practical purposes. They stand for the rejection of the White Paper proposals with all the serious consequences which such a step would bring in Great Britain; they stand for the repudiation of the policy of Indo-British co-operation in economic matters which has done so much for India during the past two years. They stand for the negation of constructive statesmanship and the repudiation of steady progress towards Dominion Status for India. Their official programme is still non-co-operation but, this time, in the legislatures instead of in prison. It is hoped that the electors will realise this.

Certain legislative questions affecting Planters have been before us during the recent session of the Assembly but there will be opportunities later for a more detailed discussion. I should, however, in the presence of His Excellency the Governor, like to acknowledge on behalf of the community which I represent, the readiness of Government to help in every way possible to improve the position of the agriculturist, which term includes the Planter, and to provide any machinery of economic co-operation which helps to improve prices. (*Applause.*)

There are just three matters to which I want to refer. The first is rice. It will be remembered that the Madras representatives have for some time been pressing for action to be taken with regard to the

abnormal increase of imports of rice into India, and in particular the Madras Presidency, from foreign countries. The whole question raised somewhat difficult and delicate issues but the position has been very carefully watched. The recent rise in prices in Madras may, if it continues, render any drastic action unnecessary. But the Government of India will be held responsible if it fails to take into action, and immediate and strong action, if this present rise proves to be only temporary. The whole prosperity of the Presidency is largely bound up with the price of rice, and anything which retards the natural rise, which should be expected now, is retarding the turn of normal prosperity in the country. Planters depend as much on agricultural prosperity as anything else, and that is why I am referring to this question here.

Your Chairman wished me to say something on the question of roads. During the speeches of His Excellency the Viceroy at the joint meeting of the Central Legislatures on the 29th August, he referred to the considerable advance that has been made in developing road communication during the past year. A Communiqué was recently issued to the Press giving the results of a meeting of the Standing Committee for Roads, when large sums were distributed to provinces from the Petrol Tax Fund in order to assist them in improving and opening up communications. It will be remembered that arising out of the Road-Rail Conference, held at Simla in April, 1933, the Government of India made an offer to loan up to one crore of rupees to each province for approved schemes of road development. I understand that so far the Governments of Bengal, Bombay (both the main province and Sind) and the Central Provinces have decided to avail themselves of this offer to some extent, if not in full; while the Government of Assam are also contemplating a loan programme. I do not know whether the Madras Government have so far taken any action in this matter, but I trust they will not miss this opportunity of availing themselves of cheap money and cheap labour and material to push forward with provincial road development. (*Applause.*) An excuse which is frequently put forward for not going in for large development schemes is the liability which follows in regard to maintenance charges. I would point out, however, that in special circumstances the Government of India will permit both this and the interest charges to be met from the Provinces' share each year of the Petrol Tax Fund. Further, if modern methods of road construction are adopted, maintenance charges will be considerably reduced, and the indirect revenue derived from the opening up of communications which will fall to the Local Government will assist towards the increased liability. I would ask that both His Excellency and members of his Government to give this matter their early and careful consideration. (*Applause.*) Road development is almost as necessary to the prosperity of agriculture as a rise in prices.

The result of the first year's working of the Ottawa Agreement is now available and the Committee of the Assembly has issued its first report. It was found that India had definitely benefited in her export market and that the preferences given to the United Kingdom in India had not prejudiced the consumer, the revenues or home industries. In spite of a year in which world-trade slumped, restrictions were imposed by many countries and currencies fluctuated, India's trade with the United Kingdom expanded and the United Kingdom held her own in India's market. This result is more satisfactory than I ever

expected and I believe next year will show even better results. There are many who refuse to recognise the facts. The Minority Report of the Assembly Committee was written by racial politicians. As we discussed the figures, it was pitiable to see them refuse to admit the facts simply because of their racial prejudices. If the agreement had been with Russia or with any other foreign country their conclusions would have been different. But in view of their political and racial bias, arguments, facts, figures and statistics were useless. Nothing that is good, in their view, not even trade, comes out of the United Kingdom. If they ever admitted it, their stock-in-trade would disappear. It is a pity that the Ottawa Agreement cannot be examined dispassionately in this country. Business interests in India, both Indian and European, will have to watch the position most carefully or they will find that one day the politicians have, in their racial passion, destroyed their trade and put barriers in the way of economic recovery. India's real interests lie in trade agreements, first with her largest and most stable single market, and then with the rest of the world. Racialism of a narrow type should not be allowed to damage those interests.

I turn now to two matters arising out of the coming Reforms. The first refers to our community's claim in regard to the requisite safeguards in the event of the transference of Law and Order to responsible Ministers. An impression has been circulated in both Madras and Bombay that the European Association in these two provinces has not adequately supported the Bengal point of view on this point. That is a false and unjustified charge. Any one reading the Memorandum to the Joint Select Committee, and the evidence given upon it by our witnesses, will realise that on this question we spoke strongly and definitely. We did not then, and do not now, claim to be experts in administrative methods, and during the course of our evidence we put forward more than one suggestion for the examination of the Joint Select Committee. We stated that, whatever methods were finally chosen, they must be such as to provide the safeguards which we felt essential. On our return to India, Mr. Page and I received the unanimous approval of all Branches for our work. We decided, however, that it would be well to send a supplementary letter to the Joint Select Committee summarising in definite and succinct form our position as a result of the Memorandum and evidence which had been placed before it. That letter was drafted by myself and was sent forward to London with the support of all Branches throughout India. It summarises the position which was taken up by the Bengal Branches with our support and there has been no change in our attitude since then. In order to support Bengal, Madras and Bombay have, perhaps, gone further than they might have done if they had considered only the needs and circumstances of their own provinces.

When the Joint Select Committee reports, it will be our duty to examine its proposals in regard to the police with the greatest possible care. The criteria of our examination should be—

- (a) Are the proposals workable?
- (b) Do they ensure the effectiveness of those safeguards which were laid down in our Memorandum and evidence as being essential to our agreement to accept the transfer of Law and Order?

The proposals will not, perhaps, be identical with our own suggestions; but that in itself should be no reason for rejection. If they

satisfy the above tests then we should accept them without further argument.

It seems likely that the Report of the Joint Select Committee will be published before the end of November. The introduction and passing of the new Constitution of India Bill is the next stage, and those of us, who have watched developments here in the last five years and who realise the immense and almost miraculous change in the situation which has taken place largely owing to Lord Willingdon's wise administration, will realise the importance to the constitutional elements in this country of securing the passage of that Bill as early as possible. The difficulty is it has become the subject of parties and partisan manœuvres. In the course of manœuvring and counter-manœuvring valuable time is likely to be lost. It is essential, however, once the Joint Select Committee has reported and the National Government has made up its mind on the terms of the new Government of India Bill, that every effort should be made to expedite its passage. (*Applause.*) Delay in these matters means danger, and the early passage of the Bill will strengthen the position of the co-operating and constitutional elements in the country. Delay will strengthen the hands of those who want war and not peace, whose policy is to exploit a grievance and not to work a constitution.

On the publication of the Report the representatives of the European community will meet in conference to decide their general attitude towards the proposals; for it is important that, when the opinion of the community on the matter is given, it should only be given after deliberation and, if possible, with unanimity. The Report of the Joint Select Committee is likely to be one of the weightiest and most formidable documents in modern times, and the new Government of India Bill one of the most comprehensive and intricate. Once the Report is published and the Bill introduced into Parliament we shall be nearing the end of the long series of constitutional enquiries, and we shall be in sight of the largest extension of self-government that has yet been given to this country. A new political and economic era will begin for India. I hope and believe that by our tradition, our powers of organisation, discipline, practical application and co-operation, we shall be able to play a useful part in the building up of this new India. (*Long and prolonged applause.*)

The Chairman:—Your Excellency, Ladies & Gentlemen,—We very much appreciate the encouraging words that His Excellency expressed a few moments ago with regard to the loss to the local Government involved in the Tea Restriction and Rubber Restriction Acts. We quite realise the sacrifices that his Government has had to sustain, but at the same time, we feel that, with the improvement in the condition of the industry, the Government will eventually get back what they may have lost temporarily. On your behalf I have to thank their Excellencies for coming down here and I think their visit will prove a landmark in the history of this industry. I have one more request to make to His Excellency and that is, if he would be so good as to give us a signed photograph of himself, we should be delighted to have it enlarged and put up in this room as a permanent commemoration of his visit here to-day. (*Applause.*)

The meeting adjourned for the lunch which was given by the delegates to all visitors in honour of His Excellency the Governor and Lady Beatrix Stanley.

Second Day, Thursday, 13th September, 1934.

The Meeting re-assembled at 10 a.m.

The Chairman:—I will ask the Secretary to call the roll, and check the names of the delegates present.

The Secretary then checked the names.

The Chairman:—Gentlemen, we have a very long Agenda, as you know, and not very much time to put the business of the meeting through. I hope you will all co-operate and assist me to expedite the business of the meeting so that we can close in good time to-morrow.

EXECUTIVE COMMITTEE'S REPORT.

The Chairman:—I would call your attention to the Report and before asking you to adopt it, I should like to know if any delegate wishes to speak on the report or to ask any questions.

I take it that no one has any questions to ask. I, therefore, move the following resolution from the Chair:—

"That the Executive Committee's report for the year ending 31st March 1934, be and is hereby adopted."

The resolution was carried.

ACCOUNTS—1933-34.

The Chairman:—The next item is the Accounts for 1933-34 which have been circulated to all members. I will call upon the Secretary to read the Auditor's report.

The Secretary:—The Auditor's Report reads as follows:—

"We have audited the Balance Sheet of the United Planters' Association of Southern India (Incorporated) as at 31st March, 1934, and above set forth, and have obtained all the information and explanations we have required.

"In our opinion such Balance Sheet is drawn up in conformity with the Law and exhibits a true and correct view of the state of the Association's affairs according to the best of our information and the explanations given to us and as shown by the books of the Association and the returns from the Divisions.

"(Sd.) FRASER & ROSS,

Chartered Accountants, Auditors."

The Chairman:—Has any delegate any questions to ask in regard to accounts?

Mr. Madden:—I have received instructions to ask a few questions. In the U. P. A. S. I. Income and Expenditure Account there is shown an amount of pension to Mr. Waddington, the late Secretary. We should like to know the position of the mortgages which were drawn up to secure that pension.

The Chairman:—They have been re-conveyed and the deeds have been returned to the Association.

Mr. Madden:—There are two other points. One is under "Political Department, Other Legislatures"—a sum of Rs. 1,027 is shown as spent. May we know as to how that has been disbursed? Also in this connection we understand that the allotment for other legislatures was Rs. 2,000 for this year. Are we to understand that any balance un-expended is to be carried to a special reserve to be utilised, should the case arise, for any special representation in such Legislatures?

There is also another point and that is under the item "U. P. A. S. I. Provident Fund"—a sum of Rs. 890 is shown as an advance against contributions. Although we realise that it may have been necessary to grant this, on the whole, we are not in favour of such advances.

The Chairman:—Mr. Madden, the first point you raised was the question of "Political Department, Other Legislatures." The item amounts to Rs. 1,027. You want to know the details in connection with that. I am afraid I cannot give you full details off-hand, but most of that money went to the representatives on the Travancore Legislatures. I have no record of any decision that any balance that there may be at the end of any year being carried forward or transferred to reserve account. As regards last year, there was no budget for this item, so, in any case, there could not have been any balance to deal with. From this year onwards there may be a balance, but there is no record that we have been asked to carry forward or transfer to reserve account what may be unspent.

With regard to the Provident Fund, that loan was given to one of the staff as a special case; this was in connection with the education of his family. It is not a practice that the Executive Committee propose continuing, but special cases may arise occasionally.

If no delegate has any further questions to ask in regard to the Accounts, I will move from the Chair:—

"That the Accounts for 1933-34 be adopted."

The resolution was carried.

POLITICAL DEPARTMENT.

The Chairman:—I will ask Mr. James if he has any information to give us in regard to the reorganisation of Political Representation and the Madras Fund.

Mr. James:—Last year, at the annual meeting of this Association I described in some detail the proposals that were then under consideration for the organisation of an All-India Political Fund. I am happy to be able to announce that the details of that organisation have now been completed and, at a meeting held at Simla at which Bombay, Bengal and Madras were represented, final shape was given to the necessary formalities for the inauguration of the Central Political Fund. It is our object that the Fund shall commence, if possible, as from the 1st of October, but there may be some little delay with regard to the actual completion of the formalities. You will remember that that Fund contemplates that subscriptions should be received from Firms and Trade Associations all over India for the support of all-India stipend-

iary representatives. It contemplates that the Madras Fund should pay into that Central Fund a block amount for the services of their own stipendiary representative in the Assembly, and that the payment of that block amount would leave an adequate sum in the Madras Fund to engage, what we all feel very necessary, an assistant who would be in the Madras Office. He would be permanently situated in Madras and his services utilised to safeguard South Indian interests in the Legislative Council and in the Corporation.

We have been negotiating for the engagement of a suitable person and I think I can say that we are on the verge of making the appointment. The date of the joining of this assistant will depend to some extent upon the date of the formal inauguration of the Central Fund, but I think there is no doubt that within the next month or two a definite appointment will be made and an assistant will be available in the Madras Office. I should like to add that it has not been easy to accelerate the progress of organising this Fund because of the numerous interests that have been involved. One of the reasons why I came back from Home leave was to assist in bringing this to completion, and we have been successful in achieving that aim. By the end of the year, we shall have our own interests represented not only in the Assembly as at present, but also in Madras permanently. I believe that in the future, our Political Fund, once an appointment is made, will be even more useful.

The Chairman:—Mr. Luker, I wonder if you would be so good as to address the meeting?

Mr. Luker:—Mr. Chairman and Gentlemen,—I am rather taken by surprise because I did not expect to be asked to speak, but I thank you, Sir, very much indeed for your kind invitation to me as representing the Madras Branch of the European Association to attend this Conference and for the opportunity to say a few words, only very briefly, as your Chairman has pointed out that you have a very long programme before you.

We have a common ground with the UPASI and the Chamber of Commerce in the Political Fund which Mr. James has given a resumé of. We felt the absence of Mr. James from Madras very considerably during the past year, but we have fully realised that his work in the Assembly has been very much to the benefit of Europeans in South India and their prosperity, particularly that of the planting community. We shall welcome very much the appointment, at an early date, of a Secretary or an assistant to Mr. James in the Madras Office because that need is a very very real one.

If I might be permitted just for a moment to refer to the European Association, Madras Branch, I would like to assure you that we are trying to do all that we possibly can, to organise the Association to meet the coming needs under the new constitution. Exactly what these needs may be will depend on developments as time goes on, and on the result of the Joint Select Committee Report. We have in front of us, and, I would assure you of this, we have all the time in front of us the needs of the mofussil. It is of necessity that much work has to be done and carried out in Madras City. I am sure Mr. James will agree with me that this is a necessity, and it is a great difficulty to keep always in closest possible touch with you, Gentlemen, and other Europeans scattered throughout the districts of South India, but we are

keeping, and shall ever keep, that necessity very much in front of the Madras Branch. I would emphasise that the need for this association of individuals is a very definite one; your interests and other interests are adequately covered as regards what I may call organised representation by the industrial associations and Chambers to which many of us belong; but there must be a need, and it will be a still greater need in the future, for the European Association to take care of the interests of the individual in this country. There are Europeans widely scattered in different places in South India, in Bellary, in Travancore, in Trichinopoly, scattered all round the place, who possibly cannot or will not be covered by any industrial association. One looks upon the European Association, possibly, in the future as an organised electorate for certain seats in the Legislative Councils and other bodies such as the Corporation, Municipalities, and so on. Certain seats will be covered by industrial associations, but there will be in future, probably, as you know, certain seats for individual Europeans; and at the moment I cannot see what other association could form a better organised electorate in filling these seats for the individual in the Councils than our Association.

Yesterday, Mr. James referred to the coming Joint Select Committee Report and of the 400 clauses which we shall have to examine, probably in Calcutta. That is going to be no light task. I may tell you, Gentlemen, that we shall have to show a united front on the Joint Select Committee Report if it does not meet with our general hopes and aspirations, and I hope we shall have the backing of every individual European behind us when we have to go and try and get a unified agreement, or disagreement, on this Report. I do feel, as Mr. James said yesterday, that it is essential that the Europeans in India should produce a consolidated and unanimous view on the Report. I would also say that it has been agreed that, on the publication of the Joint Select Committee Report, as far as the European Association is concerned, there will be no wild statements. At any rate, I can assure you of this from Madras. The matter must be considered, and considered jointly throughout India, and I would definitely say that I have no intention whatever—and I do not think anyone else has in Madras—of rushing into print and publishing our views on the Select Committee Report until we have carefully considered it. (*Applause.*) We realise the responsibility ahead of us, and may I assure you, Gentlemen, that as far as our splendid City of Madras is concerned, we are very active, very keen, very alive, and we shall do whatever we can. If hard work is to be of any use to us we shall put our backs into the job.

May I ask you, however, whether you agree entirely with the views and the work of the European Association or do not agree, to use your influence to increase the strength and solidarity of this Association as representative of individuals. Numbers count. I remember Mr. James saying once that votes count, and count very much in Legislatures. Strength in the European Association counts, and it will count very much more in future when we have to take our part in the wider principles of the co-operative policy and co-operative administration of this country under the new Reforms. (*Applause.*)

The Chairman:—Has any delegate any questions to ask with regard to the Fund?

Mr. James:—May I say one more word. This is an opportunity, that I shall not have again of meeting my constituents in the planting area before the elections. As you know, the new elections to the Assembly are going to take place in November. I venture very much to hope that the work which I have tried to do in the last two years in the Assembly will encourage you to cast your votes for me at the forthcoming elections. So far I have not heard of anybody putting up against me, but one never knows what will happen. The work in the Assembly next year is going to be of a more difficult character than the work in the Assembly during the past two or three years. As I explained, we are going to have in the Assembly the Congress as the single largest party in that House, with its face set against the proposals in the White Paper, its face set against any conception of Indo-British co-operation, its face set against any safeguards to particular interests, and its face set in the direction of a policy of racial and communal exclusiveness which I believe will be very damaging to the general interests of the country. Our work will be much harder than it has been from that point of view, and therefore, I think that those who are prepared to go back into the Assembly, whether here or elsewhere, on behalf of European interests, will need all the possible backing from their constituents.

I do not propose to report the various details of work that I have tried to do during the past year for the planting constituency except to say this—that during the past two years I have tried to serve your interests in the Assembly. I do not claim not to have made mistakes. But I do claim that I have done my best and I do want to thank you all for the patient and sympathetic way in which you have responded to any demands made on you. I look forward to the privilege of serving you in the next Assembly at least for a period of three years.

The Chairman:—Gentlemen, on your behalf I should like to thank Mr. Luker, Chairman of the Madras Branch of the European Association, for coming here to-day and giving us such an interesting address. I am afraid I called on him without adequate notice. I did not realise that the subject was coming up this morning and I apologise to Mr. Luker for not having warned him.

PROPOSED COFFEE CESS & COFFEE MARKETS.

The Chairman:—We are taking items 26 and 28 together at the request of the Coffee interests. I think, Mr. Garrett, you have a resolution to move under the proposed Coffee Cess.

Mr. Garrett:—The resolution which the Mysore Planters' Association had notified reads as follows:—

"That this Association proposes the formation of a Coffee Board for South India."

I should like to ask the permission of the meeting to withdraw that in favour of an amended resolution, of which due notice has been given to the Secretary and accepted by the Executive Committee and has been circulated to all delegates, reading:—

"This Association is of opinion that the Government of India should be requested to introduce legislation on the lines of the Indian Cotton Cess Act 1923 at an early date establishing.

a Coffee Cess Committee for India for the administration of a Fund to be created by a cess on Coffee Exports for the purpose of the improvement and development of the Coffee growing industry, and that such Committee should consist of Representatives of the growers, the Governments of Mysore, Coorg, Madras, Cochin and Travancore, the Shippers, the curers and the Imperial Council of Agricultural Research, always provided that the growers should be in the majority."

The Meeting gave permission for moving the amended resolution.

Mr. Garrett:—I do not think I need touch on this subject at very great length. It has been discussed with the Coffee interests in the Coffee districts, at Coffee Meetings and by Sub-Committees. I would just like to refer back to the General Committee Meeting held here last March when, you will recollect, this Association passed a resolution approving of the general principle of an export cess on Coffee—a movement which was initiated by the Government of His Highness the Maharajah of Mysore, and who we have to thank for the lead. We took this matter back to the Mysore district and discussed it with our members. The point then arose that, if you succeed in this, who or what body should be appointed to administer this Fund. We started off by examining the proposition on the lines of the Coffee Board of Kenya, which, we are given to understand, has been founded in the interests of the Coffee industry of that Colony. We studied it in fairly full detail and came to the conclusion that it was unworkable here. The position there is simplified considerably because they are mostly dealing with European dealers, but when we tried to apply all their different sections to India it was altogether too difficult to apply them to conditions prevailing in this country.

Then we came here and discussed the matter with Mr. James and he has very kindly helped us to draw out proposals for the formation of a Committee much on the lines of the Indian Cotton Cess Act. I do not think I need say anything more on the subject except just to mention one point. We are not asking you to-day to tie yourselves down to anything definite. We suggest that, if the delegates approve and pass this resolution, the matter should be referred to Districts for further discussion, and, in the event of unanimous approval among the districts, that the U. P. A. S. I. should then address the Government of India again. After that the matter would, of course, in the ordinary course of events have to be referred back again to the Indian States, and then the proposal, if passed and agreed to, would be put before the Assembly. Mr. James has impressed upon us that, if we want to get this matter passed through the Government of India at an early date, we must act quickly, and he gives us at the most two months in which to discuss the proposals in the districts and forward their opinions to the U. P. A. S. I. for it to make final representations to the Government of India. Mr. James has further told us that, if the U. P. A. S. I. members give this matter unanimous approval within two months' time, he hopes to present a Bill to the Government of India at the next Session of the Assembly. Might I ask Mr. James to explain the details of the proposed Committee which we discussed this morning?

Chairman:—Who is your seconder please?

Mr. Nicolls:—I second the resolution.

Mr. James:—Mr. Chairman, I understand that what the resolution seeks to is to put down in a summarized form the main principles which have already been agreed upon by an overwhelming majority of the Coffee growers throughout South India. At a meeting we had yesterday we had the advantage of consultations with the Director of Agriculture of Mysore, who is present here this morning, and Mr. Livingstone, who is the Marketing Officer to the Government of India attached to the Imperial Council of Agricultural Research. When we talk of legislation we are thinking of something rather along the lines of the Indian Cotton Cess Act, 1923, and I may perhaps just briefly outline the kind of Bill which we might have in mind if we are going to follow the principles of the Act.

First of all, the object of the Bill would be the creation of a Fund in this country for the purpose of propaganda, improvement of marketing, agricultural and technological research, or any other purpose which is in view for the improvement and development of the coffee growing industry in India. Secondly, this Fund would be created in the first instance by a cess to be levied and collected on all coffee exported from any customs port to any part outside British India, or exported by land from British India to any foreign territory, at a rate—a maximum rate—which will be fixed in the Bill. I understand that the proposal is, to begin with, that the cess should not be more than eight annas a hundredweight. But it is important to include in the Bill a maximum which would anticipate any further need which you might have, to raise funds over and above that amount later on.

This cess would be collected by the Customs machinery at the port of exit and the proceeds, less expenses, if any, incurred by the Customs Authorities, would be handed over to a Committee which would be established under the Act.

Now, in regard to this Committee, I understand that detailed proposals will be sent round to District Associations. There are, however, two or three points which must be followed in constituting this Committee. First of all, the growers of coffee must be in the majority, that is, the primary producer must be in the majority on the Committee. Secondly, the Agricultural Departments of the Governments concerned must be represented. Thirdly, the main organisations representing coffee, such as the Coffee Growers' Association and the U.P.A.S.I., must be represented on that Committee. Care must be taken to represent those interests which are not included in the membership of either or both of those Associations; that can only be done at present by the system of nomination by the Governments concerned. Further, the trade interests, that is, the interests of the shipper, the merchant and the curer must be represented. Finally, the Imperial Council of Agricultural Research, to whom we hope to owe a debt for assistance in the near future, and which is the co-ordinating body in agricultural work both in regard to British Indian provinces and Indian States, must be represented. This Committee would in a sense be a kind of Coffee Board for India. It would administer the Fund raised by means of the cess on exports, and it is to be hoped that with the establishment of this Board the coffee interests would be able to devote greater attention to the matter of propaganda and marketing methods than they have been able to achieve in the past.

Those are the main principles of the Bill on which it is proposed to consult the District Associations. If there is general agreement, they will be sent up to the Government of India with the request that they should undertake legislation at an early date. The Government of India would, of course, require to consult Local Governments and the Indian States concerned. We owe a great debt to the Government of Mysore, particularly for the interest which it has shown in the matter and for the encouragement which both the Diwan and the Director of Agriculture have given to the industry in going forward with the proposal. I am quite sure that you will all recognise that debt. (*Applause.*)

Mr. Garrett referred to a two months' limit. I am not quite sure whether he was entirely right in suggesting that there was any limit whatever in point of time to the consultation which should take place. But what we do feel is this, that if it is possible to secure general agreement so that representations might be made to the Government of India in time for them to legislate in the budget session of the Assembly next year, then we shall be saving a good deal of time. If that is not possible, then it means that legislation could probably not be undertaken until the expiry of another twelve months or so. That is why I feel very strongly that this reference should be sent round to the Districts with a request that they should give their considered opinion as early as possible, so that the matter may be expedited.

The Chairman:—We have here to-day Mr. Livingstone, the Marketing Expert to the Imperial Council of Agricultural Research. I would like to ask Mr. Livingstone if he would be good enough to address the meeting on the subject.

Mr. Livingstone:—I think that in adopting a policy on these lines you are taking just as good a way of helping the Coffee Industry as is possible at the moment. I hope that by proceeding on the lines of the Indian Cotton Cess Act and getting a really representative committee of all the interests concerned in growing and marketing coffee, that useful results will be soon achieved. The funds to be collected by the cess are, I understand, going to be devoted particularly to agricultural and technological results which will aim at getting some kind of standard of quality or a series of standards of quality—recognisable standards—working from the agricultural end right up through the curers to the final roasting stage. Technological results are particularly important. I would like to suggest very strongly, if funds permit, that you should make some provision for having a marketing survey made, and arrangements made for a freer co-ordination of the whole coffee industry. It is extraordinary how people differ in regard to what one thinks are elementary facts. It is useful in connection with the marketing of any commodity to get all the facts set down in the first place so that any one can judge the situation correctly. In England, that has been the method of approach every time. First of all, there is an investigation which sets down all the facts of the situation, then if the picture is well and properly drawn it ought to be obvious at once to any one what particular method should be pursued in order to improve marketing either by standardisation or by the organisation of the industry itself. One point is, that this Cess Committee may not be the final form of organisation in regard to the development of the marketing of coffee.

One would like to see the industry so organised that Indian coffee would hold its own against every other coffee in the world and to extend its markets not only in India but also in other countries. I should just like to make one point in connection with the marketing schemes in England. Various Marketing Boards, as you know, have been set up for example, for hops, milk, potatoes, bacon, sugar, etc. All these Boards control the marketing of the product concerned. There is no question of eliminating really useful middlemen or useful manufacturers. The whole trade, along with primary producers, and secondary producers, are vitally interested in the establishment of these Boards and in improving the industry generally. In connection with the establishment of these Boards, the Government at home is prepared to back them up by means of the regulation of imports. They are prepared, if the Boards will undertake to produce the goods of the required quality and in the required quantity, to limit imports. The only thing is that, before limiting imports, they must be satisfied that the Board to be set up will promote the more efficient production and marketing of the product concerned. Now it is possible that you may ask the United Kingdom to give you some more support on their market for Indian coffee. Well, I can tell you this now, that they will not lift a finger towards helping the producers at home until the producers themselves are prepared to form a Marketing Board and help themselves. Therefore, if it is your intention to ask the United Kingdom to give you any further assistance in regard to coffee, then the first step is that you should quickly form some kind of board and show that the industry here as a whole really means business and means to promote the more efficient production and the marketing of Indian coffee. I do not think there is anything more to be said on this point at the moment.

The Chairman:—We have here to-day Mr. Yegnanarayana Iyer, the Director of Agriculture in the Mysore State. I should like the Director to address the meeting if he will be so good as to do so.

Mr. A. K. Yegnanarayana Iyer:—Mr. Chairman.—Let me thank you at the outset for your courtesy and kindness in inviting me to be present on this occasion. It gives me very great pleasure indeed to be in your midst to-day, for I greatly value the opportunity it affords me to get personally acquainted with so many prominent members of the Planting Community of South India. It enables me also, if I may be permitted to mention it on this very first occasion that I meet you, to express my own personal interest in the welfare of the planting industry of the State and the great admiration I have always felt for the energy, enterprise and perseverance with which you have opened up our wild and inaccessible tracts and converted them into well ordered plantations.

In accordance with custom, I shall briefly refer to some of the important results of the work of my Department during the past year. Before doing so, however, let me recall to you the outstanding event of the year in the Department, namely, the retirement of Dr. Leslie C. Coleman from service. A truer and more consistent friend the South Indian Planter seldom had than Dr. Coleman to whose high scientific ability, strong common sense and organising capacity, the Mysore Department owes much of its present high reputation. The well-considered lines of policy laid down by him for the conduct of work on the Coffee

Experimental Station have been of inestimable value and it will be a long time before any need for departing from them can be felt. Let me join with you in my appreciation of his great services to the planting community.

Progress of Spraying and improvements in Spraying Methods:— I shall now refer to some of the aspects of the work of the Department in which you are all so deeply interested. Firstly comes the spraying against leaf disease of coffee. An area of not less than 20,000 acres of coffee has been sprayed in the year which, I should say, is gratifying if we consider the attitude of indifference and even hostility which prevailed at one time. We are also engaged in a certain amount of active propaganda towards better manuring at the same time, side by side with spraying for reasons which should be obvious. Considerable work has been done in respect of the ingredients of the spraying mixture, principally in the direction of displacing casein as an adhesive and spreader by means of ordinary vegetable oils like linseed oil, gingelly oil, groundnut oil and honge oil. The last three are easily available local articles and have been proved to be quite suitable. This I consider is a great gain both on account of their cheapness in cost and of their ready availability as local products. The use of a little jaggery in preventing the flocculation and subsidence of the copper hydroxide precipitate in the Bordeaux mixture is also a valuable recommendation as the result of the year's work. All the relative trials in regard to these matters have, of course, been conducted on the Coffee Experimental Station.

*Breeding of Improved Strains of Coffee:—*The next point in regard to the work on the Coffee Station relates to the breeding of varieties. We have, as the result of the past few years' work, been able to obtain a very promising strain of Arabica which has been so far found to be in a large measure resistant to leaf disease, in addition to its being a consistently good yielder. We have rather high hopes of this strain and are trying to multiply it as fast as we can. A very large number of plants raised from what appeared to be promising hybrids from different estates have proved to be useless, as their floral organs were defective and the strikingly good growth of the plants themselves and their showy flowers have been very deceptive.

We have been pursuing the work on the vegetative propagation of plants of outstanding performance by the method of putting out cuttings to root and have found that both Robusta and Arabica cuttings root well from February to June. The work has, however, been rather slow and we are proposing to use glass frames and horticultural methods to see if we can have better success. It is obviously a safe and reliable method and the matter of speeding it up, therefore, deserves to be explored fully.

The Farm was visited by a Java Planter of much experience in Robusta Coffee, who was of the opinion that special strains ought to be got out for trial from that country, suited to our high elevation and poor soils and the somewhat long spell of dry weather between November and May. An offer was recently received from him for the supply of such types from his own estate in Java and this I have passed on to your Association, so that planters may be circularised and those wishing to get out some for trial may do so.

"Quality in Coffee" Investigations:—One other rather important matter which will come up for detailed discussion before you and to which I may briefly refer here is the subject of studying the question of "Quality" in coffee. A very detailed scheme has been drawn up by your Scientific Officer, Mr. Mayne, with which I am in general agreement. It is a most difficult matter and many lines of fundamental research are involved. There is always the difficulty of correlating determinable quantitative factors with a highly elusive character called "Quality" which ultimately is a matter of personal judgment and, therefore, varies from person to person, and even with the same person may vary according to circumstances. Still we do not despair of capturing and assessing this quality and giving it a numerical and determinable expression however difficult it may be. Meanwhile, I think it should be possible to correlate our manurial experiments with some of the external characters of the coffee bean, which, short of a liquoring test, go to determine quality. I mean size, shape and proportion of the different grades, colour and specific gravity, such indeed as are indications of quality in the ordinary market. With this object I propose during this year to treat the produce of the different manurial experimental plots on the estate itself, in order to see what variations in these characters are brought about by the different manures or combinations of manures. This is a most important line of work for, after all, unless we can correlate quality with some one or other of the factors of production which we can control, an investigation into quality can remain only a matter of scientific interest. My hope is that the work I propose above will yield us some useful indications. At any rate, it is easy of being taken up in our Station. In fact, while we keep up the continuity of the experiments on the Station unimpaired, I think we may with advantage take up work on the preparation side of coffee for a systematic study, as I believe this has not been attempted in the past as far as I know. Items of work like the extent to which the shape and colour of the coffee bean are influenced by the rate and degree of drying, which is a very useful line of work, are capable of being taken up under controlled laboratory conditions, even with our present equipment.

The older planters among you may remember that the Department took up this subject of "quality in coffee" with this very object, so early as some 30 years ago. Quite a large amount of analytical work on a large number of coffee samples got out from the London market was carried out under the direction of Dr. A. Lehmann, the then Agricultural Chemist. The interpretation of the results also led to some valuable tentative conclusion. The work could not be continued for various reasons. The time, however, appears ripe for initiating work anew on this important subject.

I may also bring to your notice what I have heard from a representative of Messrs. Krupps, who called on me some time ago, that they are putting out machinery to pulp coffee purely by mechanical methods involving no fermentation of any kind, and that even in regard to our coast curing, our present methods were, in his opinion, very primitive. I do not forget that he was a seller of machinery but I put it before you to show that there is room for scientific work on the "preparation" side of coffee.

Marketing and Advertising:—I do not know if I may appropriately refer to marketing questions, but I should like to say a few words on

this subject, if at least to indicate to you what a real live interest the Government of His Highness the Maharajah is taking in the well-being of the coffee industry, as one of the important assets of our State. It has become a truism to say that efficient marketing methods are most vitally complementary to production; they have always been so, but in recent years they have become even more so. Nothing can be a greater demonstration of this view than the new marketing organisation being created by the Government of India and the Provincial Governments. As this question is also to be discussed in detail and as I have certain matters to bring up at that discussion, I shall only refer here to the subject of advertising coffee and improving its sale both in India and outside. In India we have a market which can absorb all the coffee we produce and more, if only we can advertise properly. I shall just relate to you two little incidents to show you the situation. In a general store in the Calcutta market, one day, a friend of mine from South India asked for coffee powder; the shop-keeper looked puzzled, but intelligence quickly dawned on him and he forthwith fetched and handed out a tin of face powder! Now for the other incident. In Bombay, a firm sells coffee as pure as you can get it, ground while you wait and in your presence. I went to see the shop and examined the roasted coffee in the hopper of the power-driven little mill. It was absolutely pure, perfect beans, uniform in size and roasted likewise to a uniform tint. Bombay is not a coffee-drinking city and yet I was told the man sells 500 lbs. of powder a day. I bought some and found it excellent. The Calcutta incident shows you the scope and the Bombay one the method. Really, Gentlemen, cannot your unique and powerful organisation do something in this direction? Those of your representatives that attended a meeting called by the Dewan of Mysore recently may know to what expenditure the Mysore Government has gone in advertising Mysore coffee in the leading newspapers of London. The proposal to raise funds by the levy of an export cess was well received. The question of opening coffee shops as part of the advertisement campaign was also raised, you will remember, and no doubt Government may come to our assistance in this also. It may not be generally known what an amount of serious concern was caused to the Government when the news of the decision by Germany to stop the imports of Indian coffee arrived in this country, and how action was promptly taken in all directions which held out any promise of easing the situation. I am mentioning the matter merely to show that any systematic and large attempt on your part to push the sale of coffee, and indeed of improving the industry in other ways, is likely to receive the sympathetic assistance of the Government. For my part, Gentlemen, I need hardly assure you how glad I shall always be to act in mutual co-operation with you in all matters affecting the planting industry in Mysore. (*Applause.*)

The Chairman:—We have listened with the greatest interest to the address given by the Director of Agriculture, Mysore State. On your behalf I wish to thank Mr. Yegnanarayana Iyer for coming here today and for giving us such an interesting address. (*Applause.*)

You have heard the resolution before the meeting. If no delegate has anything further to say in regard to it, I will now put the resolution to the vote. It is proposed by Mr. Garrett and seconded by Mr. Nicolls.

The resolution was carried.

BRITISH IMPORT DUTY ON COFFEE.

The Chairman:—Mr. Nicolls, I think you have a resolution to move in regard to preferential tariffs.

Mr. Nicolls:—The resolution which our Association wishes to move reads as follows:—

"In view of the fact that the Preference of 9s. 4d. per cwt. given to Indian Coffee in the United Kingdom by the Ottawa Agreement has not resulted in any increase of Indian exports in spite of the efforts of coffee producers to exploit the advantage, this Association requests the Government of India to invite His Majesty's Government to increase the Preference at an early date."

Mr. James, in his speech yesterday, referred to this subject, and he made it clear that the Committee which considered the report on the Ottawa Agreements was definitely of opinion that Indian coffee had not benefited by the preference given, and it is for that reason we have tabled this resolution. Both he and also Mr. Livingstone, in their speeches, made it very clear that it is quite useless for us to approach the United Kingdom Government for further preference unless we can show that we are making some efforts ourselves. This resolution, if passed, clearly indicates that we are making considerable efforts, and there is a further resolution which will, I think, be moved this afternoon on the subject of the employment of a bio-chemist to investigate the quality of coffee which will give the necessary further proof. We could not, in this resolution, mention other countries, as it is quite obvious that the Government of India can only consider Indian coffee, but we have the assurance of the Kenya representative in London that Kenya will support any efforts made on our part to get more preferential treatment for Empire Coffee. Whilst it may be the opinion of some that we should push the preferential treatment of our coffee alone, Mr. Livingstone has made it quite clear that the United Kingdom Government would never consider giving preferential treatment to India and not to other Empire countries. I think there is nothing further for me to add and I would, therefore, ask you to give your unanimous support to this resolution.

The resolution, proposed by Mr. Nicolls and seconded by Mr. Garrett, was put to the meeting and carried.

The Chairman:—Before passing to the next item, Gentlemen, on your behalf, I should like to thank Mr. Livingstone for having come here to-day and for the excellent advice and valuable assistance he has given us in connection with the marketing of coffee, and we are very grateful to him for having spent the last two days in Committee Meetings discussing with the Coffee Members the various resolutions they are putting up to-day. (*Applause.*)

HARBOURS.

The Chairman:—We now pass on to Harbours. I think the Nelliampathy Planters' Association have a resolution to move.

Mr. P. W. Davis:—My Association wishes to move the following resolution:—

"This Association regrets that the fourth stage in the development of the Cochin Harbour has been delayed. It regards the com-

pletion of this harbour as very essential to the development of South India generally and trusts that the Governments concerned will inaugurate the fourth stage as soon as possible".

The subject of the Cochin Harbour is no new thing to most of those present to-day. The value of the scheme to South India generally cannot be disputed. More particularly its worth to the Planting Industry, which we represent here to-day, is equally incontrovertible. The whole project was most carefully reviewed before its inception and was, rightly, considered to be financially practicable as well as obviously desirable in the general public interest. The ports of Calicut, Alleppey and Mangalore have, in their time, been of great value to South India. They will doubtless continue to be so in a minor degree. Their utility is, however, severely limited by natural conditions for a considerable portion of the year. A certain degree of opposition to this fourth stage of this scheme has recently arisen. It may or may not be a fact that vested interests are at the back of this opposition. The Government of Cochin is strongly in favour of its completion. The Government of Travancore is believed to be equally concerned at this delay. It behoves all those who favour the project to give these Governments all possible support. I therefore call on you to pass the motion I have just read.

Mr. Mills:—I second the resolution.

The Chairman:—Before putting the resolution to vote I should like to hear if any delegate has anything to say in connection with the Fourth Stage of the Harbour. We have here to-day Mr. Pitcairn, the Vice-Chairman of the Cochin Port Trust, and I am certain you would all like to hear what he has to say in regard to this resolution.

Mr. Pitcairn:—There are few matters of public importance in this Presidency which have aroused so much interest as the Cochin Harbour Scheme and the resolution tabled by the Nelliampathy Association is evidence of the importance attached to it by the Planting Community.

I have been intimately connected with this question of Harbour Development at Cochin since the inception of the Scheme—so if I may, I will give you a very brief description of what is taking place. Cochin has unique natural advantages possessed by no other port in India. In the first place it is a natural Harbour, with large tracts of deep water, so land-locked that protection to shipping is ensured all the year round. Secondly, it is on the right side of India, on the edge of the great sea route from the Far East and Australia to Europe and America.

So much for the natural advantages. But in addition Cochin has been very fortunate in the Engineers—so ably led by Mr. Bristow, the Harbour Engineer-in-Chief—who have been responsible for the accomplishment of a very remarkable engineering feat in not only cutting a deep channel through the bar, but in training the tides and currents to keep the channel open. These are facts which we who use the port of Cochin are sometimes apt to overlook.

Now with regard to the development of the Harbour this has been divided into four stages.

The first was investigation and included foreshore protection.

The second was experimental (when a trial channel was cut through the bar).

The third was the dredging of the bar to enable sea-going vessels of almost any tonnage to enter the Harbour in all seasons and to load and discharge in the Cochin backwater.

The Fourth Stage is the provision of facilities to make Cochin a terminal port, including deep water wharves.

Now the Cochin Harbour Scheme had its genesis in the Cochin Chamber of Commerce, and the aim of the commercial and planting communities has always been to obtain, by Government aid, a safe monsoon Harbour on the West Coast, and I maintain that, with the completion of the Third Stage, this aim has been achieved.

The position to-day is that the Third stage of Harbour development has been completed. A powerful tug has been installed with the aid of which steamers may enter or leave the port at any stage of the tide. The approach channel has been lighted so that these operations may be carried out by night as well as by day. Fixed moorings are being provided and a turning basin is about to be made.

In my opinion these facilities, added to the greatly improved railway communications which will be completed in October, are sufficient until further development is justified by trade expansion.

In South India to-day—as elsewhere—trade continues to present many difficult problems. Fortunately Tea and Rubber, over which a large measure of International agreement has been reached, are in a more fortunate position, but trade generally is suffering from the lack of this International concord—in fact is suffering from the policy of isolation which each nation appears bent upon following. To take one instance—the limitation of foreign imports into Germany.

These circumstances naturally give rise to great uncertainty about the future, and call for caution in regard to further development of the Cochin Harbour,—any way until the outlook is more assured, and can be faced with greater confidence.

For, if even a modified Fourth Stage is embarked upon, the cost of it must be borne by the trade of the Port and consequently it is only reasonable that expenditure should be limited to existing requirements, and that further works—such as deep water wharves—be undertaken only when justified by trade expansion.

Otherwise Cochin may no longer be justified in claiming to be a cheap and economic port in addition to being a port of proved efficiency.

Mr. Wallace:—After listening to Mr. Pitcairn's interesting remarks, I should like to propose an amendment or an addition to the Nelliampathy resolution. May I do so as a member of the Executive Committee, or will a delegate have to do it?

The Chairman:—Could you get it done by a delegate, Mr. Wallace? You can speak to the amendment after it has been moved by a delegate.

Mr. Wallace:—The Nelliampathy Association may be prepared to make this addition to their resolution.

The Chairman:—That will be quite in order if they are prepared to alter their resolution.

Mr. Davis:—The addition to the resolution which Mr. Wallace suggests reads,—“That, if the Fourth Stage in its entirety cannot be

proceeded with at present, at any rate road and rail communications between Ernakulam and British Cochin should have immediate attention."

I think this suggestion of Mr. Wallace would, to some extent, meet Mr. Pitcairn's objections. Personally I consider Mr. Pitcairn's recommendations are not consistent with a forward policy. The Rubber industry in Malaya largely owes its existence to the policy followed of pushing the roads. Development follows facility. If facilities are not provided at Cochin, I am afraid that development cannot take place. At the present moment we hear Colombo is considering ways and means for providing facilities which Mr. Pitcairn objects to Cochin providing. I would suggest, Gentlemen, that this is not a forward policy and I trust that you will support my amended resolution.

Mr. James:—Might I ask Mr. Pitcairn two questions? It has been suggested in various quarters that the Fourth Stage of the development of the Harbour is necessary for increased trade and shipping, and that if it is not proceeded with, the present facilities will not be adequate to meet the improvement which is already taking place. That is one of the arguments I know which has been used for proceeding with the Fourth Stage.

A second question I should like to ask is this. Can it be said that, if the Fourth Stage is proceeded with, the port duties will not be increased? I wonder if Mr. Pitcairn could give us some information on these questions.

Mr. Pitcairn:—In regard to the first question of Mr. James I think I made it clear in my remarks that my idea is that further development should be dependent upon increased trade. I recently had occasion to review elsewhere the trade of Cochin, and I commented upon the fact that rice imports represented 50% of the total trade in Cochin. Yesterday afternoon Mr. James touched upon the question of rice imports, and I entirely agree with his remark that if the price of rice increases, foreign imports are likely to decline and if the Mettur project is successful there is nothing for it but decreased imports of rice from Siam and Burma.

The second point raised by Mr. James deals with harbour dues, and my point is that if Harbour development outstrips the trade increase, this is liable to result in an increased burden on trade and ultimately trade depression. It really is simply a question of being patient and proceeding on cautious lines.

The Chairman:—Mr. Wallace, do you want to speak to the resolution?

Mr. Wallace:—My suggestion was perhaps to ensure having something rather than nothing. It would be great pity if the Fourth Stage were entirely dropped; and I would rather have half of it than none of it. I think now we have that half of it covered by the addition to the resolutions, and the rest of it will naturally follow.

Mr. Pitcairn:—I think Mr. Wallace's suggestion is a reasonable one.

The Chairman:—If no one has any further questions to ask or remarks to make, I now put the resolution proposed by Mr. Davis and seconded by Mr. Mills as amended, to the meeting.

"This Association regrets that the Fourth Stage in the development of the Cochin Harbour has been delayed. It regards the completion of this Harbour as very essential to the development of South India generally and trusts that the Governments concerned will inaugurate the Fourth Stage as soon as possible, and that if the Fourth Stage in its entirety cannot be proceeded with at present, at any rate Road and Rail communications between Ernakulam and British Cochin should have immediate attention."

The resolution was carried.

RAILWAYS.

The Chairman:—No resolution has been tabled, but has anyone anything to say in connection with Railways?

Mr. Inman:—May I ask if there is any information in regard to the Gudalur extension of the South Indian Railway.

The Chairman:—No information is available.

Mr. James:—Would you say exactly what information you want?

Mr. Inman:—Has any progress been made?

Mr. James:—I have not seen any mention of it in the schemes which are before the Standing Committee of Railways, but I will obtain what information is available.

Mr. Bulteel:—My Association wants to know if they have the support of the U.P.A.S.I. on a resolution passed by the Nilgiris at their meeting held in July. The resolution reads:—

"That the South Indian Railway be approached with the object of getting arrangements made whereby estates would be advised by telephone of the arrival of the goods at the different stations on Nilgiri Railway by the use of the telephone at Ootacamund Railway Station."

The idea of this was because many estates situated far away from the Railway Stations have to send in messengers from time to time to find out if goods have arrived. This is not always possible, and demurrage charge, etc., go on increasing day by day and make it rather expensive. I was, therefore, instructed to write to the General Traffic Manager asking him if he would help us by issuing instructions to the various Stations on the Nilgiri Railway asking them to telephone to the Ootacamund Railway Station as to the arrival of goods and that the Ootacamund Railway Station might be instructed to telephone to the estates concerned to that effect. As I got no satisfactory reply to my letter, I was instructed to write to Sir Percy Rothera and so I placed the correspondence before him, but I have not received any reply as yet. We would, however, like to know if the U.P.A.S.I. would help us in this matter.

The Chairman:—I am sure the Meeting is in sympathy with the Nilgiris over this matter, but we will have to wait for the reply from Sir Percy Rothera. If his reply does not meet your requirements I would suggest that your Association write to the U.P.A.S.I. Committee asking them to take the matter up. Col. Brock is a member of the Advisory Committee of the South Indian Railway, so you might also write to him to enquire into the matter as well.

ROADS.

The Chairman:—The Central Travancore Planters' Association have a resolution to move.

Mr. Madden:—Our resolution reads as follows:—

"That the Government be asked to expedite arrangements for the classification of the Ammayanayakanur-Kuruvanath Road as a Trunk Road."

This road is commonly known as Cumbum Road and several times we have approached you and asked for your assistance with regard to it. It is a very important road under District Board control running to the Travancore frontier and carries a great deal of our traffic. Actually a similar resolution was brought up last year at this meeting, and as a result of Mr. Langley's efforts in Madras, something was done and the position, at the moment, is much better. But there is room for further improvement. I think we have been advised previously that we can only get real improvement by having the road classified as a trunk road, and in view of its position and the fact that it runs to the Travancore frontier, we think that should be done and that the Government would not object. I would, therefore, ask you to pass this resolution and request the Executive Committee and the Planting Member to press the matter in Madras.

Mr. Robertson:—I second the resolution.

The resolution was put to the meeting and carried.

MOTOR TRANSPORT.

The Chairman:—The Mysore Planters' Association have a resolution to move.

Mr. Fouke:—My Association propose to move the following resolution:—

"That this Association approaches all other possible interested parties in South India with a view to protesting as strongly as possible against the intolerable conditions imposed on Motor Transport in India in general and South India in particular."

Gentlemen,—The disabilities under which Motor Transport in India labours are such that a really sincere and united protest is necessary. There is no need to argue that India is pre-eminently a country crying out for transport development; it is obvious. In these days there is practically no hope of extensive railway building, and its desirability is in any case doubtful. Motor transport is ready and waiting for development by private enterprise waiting until the burden of taxation on it is made reasonable. Hitherto, in spite of ample examples in other countries, both to be followed and to be avoided, the Government of India, followed or excelled by Provincial Governments, have, with two solitary exceptions, done nothing but discourage and stunt it. The exceptions were the reduction of import duties by Sir Basil Blackett which very soon vanished, and the establishment of a Road Fund. Of course, the latter meant a further tax on Motor Transport, but even so can be counted useful.

At present the Government of India charge an import duty on cars at rates varying from 30% to 37½% and on busses from 17½% to 25%. This is not a protective duty. Not a car is made in India. A

few are assembled, but that is a totally different thing. This purely revenue duty, from which Motor Transport receives no benefit whatsoever, should alone be enough to buy the freedom of every road in India.

But on top of this the Government of India charges a duty on the replacements that every vehicle needs, notably tyres and spare-parts.

On top of this again, the Government of India taxes petrol to the enormous extent of annas 10 per gallon. Of this only annas 2 per gallon goes to the Road Fund, leaving no less than 8 annas per gallon to go to general revenues. This tax again should alone be sufficient to buy the freedom of the roads throughout the whole of India, but even with the import duties it does nothing of the sort.

These are, it is believed, the whole of the Government of India's extortions, and, absurdly heavy as they are, we are nowhere near the end of the tale. In passing it is worth mentioning that the heavy petrol tax and the heavy import duties are in opposition to each other. The effect of the former in making the cost of running vehicles so high keeps a check on imports, while the heavy import duty reduces the proceeds of the petrol tax by checking imports.

We then have to face the Provincial and State taxations. These appear to be subject to no central control whatever and are consequently variable in method and amount, though similar in their damage to transport. Not only is there Provincial Taxation, there is District Board taxation, there is Municipal Taxation, there are municipal toll gates, there are municipal octrois on petrol, and there are various tolls by various authorities. In fact from the Government of India every authority down to small Municipalities are allowed to, and do, tax Motor Transport.

Let us take a case of a 1½ Ton lorry used for transporting our produce from an Estate in Mysore to the Port of Mangalore. The owner, having with difficulty met the charges of the Government of India then has to face local taxation. He has, in the case I am mentioning in this example, to obtain his 'G' permit from the Mysore Government, this is a modest Rs. 16. He then has to obtain two 'H' permits, one from each of the Districts in which he will travel in Mysore. Each of these will cost him Rs. 200 making Rs. 416 in all for the year. He then enters South Kanara where he has a further 'G' permit to obtain at the modest figure of Rs. 16, a Provincial Government License for Rs. 500 and a South Kanara District Board License for Rs. 600, making a grand total of no less than Rs. 1,532 for the year. The run can be as little as 95 miles and will still entail this rate of taxation, and it is extremely doubtful if any run will exceed 140 miles. In addition to this he still continues to pay approximately .71 annas per mile to the Government of India in the form of petrol tax.

It is considered that the above figures amply prove the contention that taxation, as at present levied, is a serious deterrent to the development of that type of transport. Incidentally, they also show that Motor Taxation must be treated on much broader lines, such as a standardised system, whereby registration and other taxes made anywhere in India will permit the vehicle to travel anywhere in India.

The whole position is grotesque. The Government of India will probably answer that, whatever may be said, the amount collected by

import duties on motor vehicles and parts is rising. This is so, but the figures of imports are still very far behind those of 1929-30, when the duties were 20% for cars and 15% for buses and lorries. In the year just mentioned 17,399 cars and 15,306 buses and lorries were imported into India, against 9,759 cars and 5,496 buses and lorries in the year 1933-34.

The fact that the Motor Transport industry has managed to carry on at all under these severe conditions, only tends to show how rapidly it will develop under more sympathetic treatment. Government should reverse its policy and make the most of the possibilities.

The reward would be reaped. Given the abolition of the Import Duties, motors would stream into India. There would be an immediate rise in the receipts from the Petrol Duty. The disposal of the petrol duty should be altered every year, so that ultimately, 2 annas would go to general revenues and 8 annas to the road fund, instead of the reverse as at present. This change could be made at the rate of 1 anna per annum, which would let down Government sufficiently lightly.

Government may say that whatever may be thought the right thing to do, it simply cannot afford to sacrifice any revenue. I would suggest that the answer is that whatever is best for the country should be the policy to adopt. Every vehicle let into the country is a source of profit and employment, and is of use to the country. There is a huge field of possibilities waiting to be opened up, and only needing reasonable conditions to help in the return to prosperity. Rural India is dependent upon road transport either as a sole outlet or a means to reaching the railway.

It is suggested to this Meeting that the time has come when a complete change in the attitude of Government towards the question of motor transport is needed in the interest of the country, and that the U.P.A.S.I. be asked to take up the matter with the proper authorities. Further, that steps be taken to obtain the support of all Chambers of Commerce, the European Association, all Trades Associations, the Roads Development Association, the Automobile Associations, and any other bodies interested in the vital questions of Motor transport.

The Chairman:—In connection with this resolution that you have just heard, the Madras Motor Vehicles and Allied Merchants' Association have written to us to say that they will strongly support the resolution. (*Applause*).

Mr. James:—May I say that I shall be very glad if this resolution is passed. The meeting ought to congratulate Mr. Fowke upon the cogency of his speech. The combined policy of both the Central Government and some of the Provincial Governments and Indian States leads one to suspect that they look at the motor industry not as a means of development but as a source of taxation—an imbecile attitude, lacking in statesmanship. Everyone is aware that the Central Government has a difficult budget to balance. Everybody is also aware that the development of roads does entail a corresponding development of liability in regard to the maintenance of those roads. But surely it is general experience that in these matters it is better to take a long view than to take a short view. If in the early stages of development you expect a particular industry always to pay for itself, then there would be no industry at all in any walk of life in this country. This matter has been raised at different planters' meetings and it is difficult to know what other steps can be

taken in order to stir the Governments concerned to a sense of their responsibility in the matter. I suggest that perhaps it would be a suitable occasion for all those interested throughout the country to combine first of all in taking up the matter with the Central Government in regard to the petrol tax. It is no secret that the previous Finance Member had little sympathy for the development of motor transport. In fact, to a deputation that waited on him on one occasion he said he would be perfectly unconcerned if people gave up cars and went back to bullock carts! I think we have in our present Finance Member one whose outlook is more modern and whose general attitude towards the question of taxation is based on somewhat sounder principles. I think it is right to warn you that it is not altogether an easy matter to take off a tax that has once been imposed. But I do think that if this Association were to get in touch with other bodies of the Presidency with a view to making an All India representation to the Government of India, that would be one step. Secondly, I would suggest that this Association also get into touch with local interests in regard to approaching once more the Local Governments and the Governments of Indian States. The difficulty is that we have got not one taxing authority but about six. It surely is reasonable that there should be some check upon the cumulative effect of differing taxing authorities. This is not an easy matter to deal with, but it is a matter which should be once more taken up by this Association in consultation with all the other interests concerned in the Madras Presidency and also in the State of Mysore.

The Chairman:—Mr. Luker, Would you care to speak on this resolution?

Mr. Luker:—As, at the moment, the Chairman of the Motor Vehicles and Allied Merchants' Association, I am very happy indeed to support the resolution which has been put before you to-day. Mr. James and I, with others, did all we could in the Legislative Council to fight this question of taxation. It was a very hard task indeed and Mr. James has said much more eloquently than I can that the attitude that we were up against was a very difficult one to fight. I do not know if I am in order or treading on anybody's toes when I refer to bullock-cart taxation to-day, but that was the point which we were up against very much in South India, and although we tried as much as we could, it was difficult, nay, it has been impossible up to now, to get some reasonable form of taxation imposed on bullock carts, at least those which use metal roads. It does not seem reasonable to anybody that a vehicle should use a road unless it pays something towards the upkeep and maintenance of that road. (*Applause*). We fought and fought hard, but we could not make any progress for various reasons which I do not think I shall touch upon to-day. But up to now, we have not received any reasonable answer to that fundamental truth that everybody who uses a road should help to maintain that road. You, gentlemen, have in many cases miles of road to maintain yourselves. You have to pay for it, so why not everyone that uses a road pay towards the maintenance of it? I was extremely interested to hear an argument put forward by the mover of this resolution, which is an extremely good point, and that was, that the import duty is operating exactly contrary to the taxation on petrol. That is a very sound point, indeed one which has been constantly overlooked. In fact, it has not struck many of us. The heavy duty on motor vehicles is in direct opposition to the hopes of the Government in getting increased income from the petrol tax in this country. I agree with Mr. James.

as to what one should do next, and as he has said, one has hopes of a broader outlook from the present Finance Member, because the outlook of his predecessor seemed to be deplorable on the question of motor taxation generally. I do hope that Mr. James and others at the centre will continue to help us throughout India, and in Madras City particularly, in getting some amelioration of this present evil. What we can do next seems to be to fight in the South. I think the example set by your Association to-day must and can be followed up in the Legislative Councils, in the local bodies and so on throughout the Presidency, and may I assure you that whatever can be done in Madras to support this and make up any leeway will be done. I hope we can get together in a short time and re-raise this question because it goes far wider than to affect the interests of the motor trade, the petrol people and motorists. We must surely develop South India on progressive lines in the case of transport.

The Chairman:—Before putting the resolution to the meeting, does any other delegate wish to speak on it?

The resolution was put to the meeting and carried.

ELECTRICAL INSPECTION FEES.

The Chairman:—I will call on the Nilgiri Planters' Association to move their resolution.

Mr. Bulteel:—Before moving the resolution, I would like to ask one question. You all know we have already approached the U.P.A.S.I. on the subject and I should like to ask whether any satisfactory reply has been received from the authorities concerned?

The Chairman:—Would you read your resolution first, please?

Mr. Bulteel:—Our resolution reads as follows:—

"That a strong protest be sent to Government by this Association against the levying of any fee for unsolicited inspection of low power dynamos of 230 volts and under. Also that any such fees already levied may be refunded to the estate so concerned."

The Chairman:—The U.P.A.S.I. took this matter up and the Secretary was authorised, when he was in Madras, to go and see Mr. Rutherford, Secretary to Government. Mr. Rutherford informed him that he was drafting orders regulating these inspections and the charges in connection with them, but up to date these orders have not been passed on to us. I may mention that Mr. Rutherford informed the Secretary of this personally. There is as yet nothing official.

Mr. Bulteel:—In that case, Mr. Chairman, all that we want to do is merely to keep the matter going so that it will not be put on one side. The estate concerned was Kodanaad and the Manager of the Estate requests that this matter should not be left in abeyance any longer. It is one of those cases where an inspecting officer comes in and has a look at something which at that time was not even working. He goes out again and the estate had to pay Rs. 50. We think that all unsolicited inspections of this description should be stopped as soon as possible. I have nothing further to say on this resolution as the matter is already in the hands of the U.P.A.S.I.

Mr. James:—I would like to say one word about this resolution. This question of the fees of electrical inspectors is one that has arisen in other circumstances in other parts of the Province. It seems to be the tendency on the part of the Department concerned to make itself practically self-supporting by the method of increasing the rates of fees for all inspections, whether they are obligatory inspections under statutory authority or whether they are inspections which are unsolicited by the industry itself. I should like to say that I cannot conceive of any principle to which we should take stronger objection. If you follow that principle, it leads to the position that any activity of Government, which is undertaken under statutory authority by means of inspection, will be made self-supporting at the expense of the industry concerned. You may justly say that your Health inspectors, that your inspectors under the Workmen's Compensation Act, etc., should have all their expenses paid by means of fees levied for their inspections. It was suggested that this proposal was made as a result of the findings of the Retrenchment Committee of the Madras Government of which I was a member two years ago. That Committee made no such suggestion, and I wish to repudiate, as a member of that Committee, any idea that we recommended that any department of Government should be made self-supporting by means of a levy of inspection fees. I am very glad to hear that the matter is under consideration by the Government of Madras, and I do sincerely hope that under the sympathetic administration of the present Law Member, Sir Kurma Venkata Reddi, who is known to many of you, this vicious principle will be put an end to.

The Chairman:—Mr. Bulteel, I venture to suggest that it might be advisable to withdraw this resolution and put an amended one. Reading this resolution, one would assume that we agree with the principle of fees being levied except in the case of low power dynamos, but this is not what you mean at all, is it?

Mr. Bulteel:—We are against the principle of fees.

The Chairman:—I think it would be desirable to alter the resolution in that light.

Mr. Bulteel:—That will suit us very well.

The Chairman:—Would you ask the permission of the meeting to withdraw this resolution and put the amended one.

Mr. Bulteel:—At the request of the Chairman, we wish to withdraw our resolution and with your permission, put the following amended one in its place:—

"That a strong protest be sent to Government by this Association against the levy of fees for unsolicited inspections of electrical installations."

Mr. Greig:—I second the resolution.

Mr. Bulteel:—There is one thing I have to add, that is, regarding the refunding of the fees already levied. We do not wish to leave out our last paragraph.

The Chairman:—I do not think there is any chance of your getting any refund. It will be much stronger if the amended resolution stands as it is. Has any delegate anything to say on the resolution?

The amended resolution was put to the meeting and carried.

LABOUR DEPARTMENT—DIRECTOR'S REPORT.

The Chairman:—The Director's Report on the working of the Labour Department for the year ending 31st March 1934, had been printed and circulated to all the delegates. Has any delegate any questions to ask or any remarks to make on the Report? If not, I propose from the chair:—

“That the Director's report for the year ending 31st March 1934 be adopted.”

The resolution was carried.

RECOVERY OF ADVANCES.

The Chairman:—There was a resolution tabled by the Nelliampathy Planters' Association. Will you please move your resolution, Mr. Davis?

Mr. Davis:—Mr. Chairman, in view of the discussion that took place in the Labour Department meeting yesterday, I should like to withdraw the resolution.

The resolution was by leave withdrawn.

The Chairman:—The Anamallai Planters' Association have tabled a resolution, and I will now ask Mr. Mills to read the resolution.

Mr. Mills:—The resolution tabled reads as follows:—

“That the Anamallai Planters' Association consider that the following rule is necessary and that the matter be laid before Proprietors and Managing Agents for decision:—

“It is hereby agreed that the rate of advance to labour should be reduced to Rs. 5 per head, and that on all promotes signed on and after a date to be fixed by the U.P.A.S.I. but in any case not later than 1st July 1935, the maximum amount that one member of the U.P.A.S.I. may claim against another member of the U.P.A.S.I. on account of any debt owed to the claimant estate, or to a maistry on that estate, by any one individual be Rs. 5 plus way expenses (one way only) at a rate not exceeding two cents per mile.”

Mr. Chairman, we are aware that there is considerable opposition to this proposal, not on general principle so much, but under the impression that we are trying to go too far and too fast.

First let us consider if there is any real objection to the principle. How many Agents, Owners, Boards of Directors or Managers of estates think that the system of giving advances to labour confers any real benefit to the estate, or that estate costs would increase if advances were even completely abolished. The only loss might be from difficulties over recruiting. There is nothing in our proposals to prevent deserving cases being assisted by an advance of wages, merely that it makes anything in excess of a certain sum irrecoverable if the cooly leaves and goes elsewhere. Money in such cases will be given with discrimination.

Is not the cooly going to be better off when, with only a small advance to pay off, he can get money at any time? The money-lenders' security is vanishing because, firstly, the advance has nearly gone and secondly, there is no certainty of the cooly coming away with a pocketful of money, as he has drawn much of it for his own convenience and

pleasure during the year. I wonder how much of the advances, acknowledged by the coolies as having been received by them, is paid direct to the money-lender by the maistry as interest on loans? The more the advance, the greater the inducement for the money-lender to persuade the cooly to borrow, being fairly certain of his interest. Who gains here? The Estate? The cooly? or the money-lender? In this connection, any legislation to curb the money-lender's activities, which is also contemplated in the report of the Whitley Commission, should receive our active support.

After careful analysis one must come to the conclusion that neither the employer nor the cooly can get any real or lasting benefit from a system of pre-employment advances, beyond perhaps a few rupees.

What it amounts to is this, that for convenience we condone an evil, firstly because it is an ancient custom, secondly, it has worked somehow or another in the past and, thirdly, it might be a lot of trouble to change.

Against the argument that our proposals are going too far and too fast I would answer that everything in industry is changing very rapidly, and that unless one keeps ahead of these changes, foresees and anticipates them, there is likely to be a change forced on us that is neither convenient nor suitable. One, in fact, that though perhaps well intentioned, will benefit neither the employer nor employee.

As we all know, legislation though sometimes delayed, is frequently hasty in the end and not always suitable to the subject. It is almost always accompanied by inspections and a multitude of forms and restrictions.

The evil of cooly indebtedness is great and is so stressed by the Whitley Commission that to imagine we can spend years gradually reducing advances is not to be thought of. Very shortly legislation will be introduced to put our house in order for us if we have not done it ourselves, and I am fairly certain that Mr. James will tell us that it is only a stress of urgent business, and important bills that Government wished to pass quickly, that keeps us free from a series of enactments regulating all our dealings with labour.

Surely it is better to put our own house in order, after due thought and consideration of both the employers' and employees' point of view, than to sit idle, working an admittedly bad system, and hope nothing will happen.

The only way to show that we really intend to take the matter in hand is to press for some such rule as we propose.

Some two years ago it was generally agreed that advances should not exceed Rs. 10. I quote an extract from the Executive Committee's report:—"In reply to a request from the Commissioner of Labour asking for the Association's views on the Whitley Commission recommendations for making the recovery of recruiting advances illegal, the Association expressed the opinion that the restriction of the amount of advances paid to plantation labourers was desirable."

We maintain that it is absolutely necessary that another definite step should be taken now. Any resolution to the effect that advances *should not exceed a certain sum* carries no real weight, but a rule to the effect that *advances from a certain date, in excess of a certain sum,*

are to be ruled out of any claim, is something concrete that cannot be avoided and notice must be taken of it.

Ceylon and Malaya are both recruiting again and the number of emigrants from India are likely to increase annually. Labour is plentiful at present, largely owing to the very bad economic conditions in the low country, and we can be fairly certain, for a year or two, that labour conditions will not be difficult. Will you visualise a position when economic conditions, as we all hope, have improved, Ceylon and Malaya are recruiting heavily, and we are suddenly told that all recruiting advances are to be irrevocable?

That old customs can be altered without difficulty is not anticipated, it will take a year or two to adjust ourselves. But why wait until recruitment of labour is really difficult and then find ourselves faced with sudden and drastic legislation that will alter the present arrangements with one stroke of the pen, and probably upset all our old connections? These would have settled down in a year or two, during the present easy period, without loss to anybody. Then, even if legislation does come in the end, there is nothing for us to worry over. Our change over will have been affected and the labour settled down to the new conditions.

The rule we suggest may be considered somewhat drastic, but we are only asking that this meeting should approve of it in principle, and to put forward suggestions how they can be carried out. This is to go forward from the U. P. A. S. I. to Agents and Owners who will be asked for their approval which, if it is accorded, will then, and not till then, become one of the Upasi rules.

Without the backing of those who ultimately control the bulk of the plantation industry no rule will carry real force, which is why we ask for this proposal to be forwarded to them for their approval.

Postponement of any real effort on our part can only be interpreted as meaning that we are not really prepared to do anything more, and await legislation. The matter I think rests with us now, later it will be taken out of our hands. Now we can choose our own laws, later we shall not be able to do so.

We have time now. Is it not logical to take advantage of it?

We have put forward this resolution as much to collect opinions from other districts as for any other reason.

If, after general discussion, it is obvious that the opinion of the meeting is definitely against us, we would reluctantly be prepared to accept an amendment increasing the figure we give of Rs. 5 to something a little higher, to, say, Rs. 10.

Mr. Gillespie:—I second the resolution.

Mr. E. W. Fowke:—I am instructed by my Association to oppose this resolution on the ground that our original advances of Rs. 30 were reduced to Rs. 15; then again from Rs. 15 to Rs. 10. I think it is impracticable to reduce any further at present.

Mr. Francis:—I am instructed by the Kanan Devan Association to oppose this resolution. I oppose it, not because we are out of sympathy with its aims and objects, but because I think it is premature. If the permitted advance is forced down below Rs. 10, the advance system, to

all intents and purposes, ceases. Before we can wash off the time-honoured system of advances, you have to build up some other system to take its place. We in the High Range feel we can speak with some authority on this subject, because we have made experiments on a very large scale. Some two years ago, when we were over-stocked with labour, we reduced our advances to bare way expenses, and I am sure, that it will interest you to know the result. We found that the estates with wealthy kanganies or with wealthy bazaarmen could manage quite easily without our advance, but that the estates relying on small family gangs lost labour at every pay-off. In other words, though we stopped advancing, the advance system continued underground and out of control. What really happened was that the money-lenders advanced the money, and the coolies bore the interest. Although there was a fair prospect of success as far as recruiting was concerned, we thought that in the interest of the cooly himself it was desirable to revert to a standard advance of Rs. 10. To stop advancing is one thing, but to stop the advance system is another. It is often argued that Ceylon has done away with the advance system, but if you speak to Ceylon Planters, you won't always gain confirmation of that. The coolies, where they cannot get advances from their *Dorais*, are able to get accommodation elsewhere. While advances continue, we agree that both the advancing and recovering should be standardised, but I do not think the proposal before the meeting would meet the case. What would happen, for instance, if the head of a family took an advance for ten persons from two estates? Can the second estate claim only Rs. 5? I think such a rule would only encourage rascality. That we shall have to abandon the advance system I have no doubt, but before that time comes, let us explore every avenue which may lead us to a better system. Some two years ago, a sub-committee was formed with a reference on these lines, but as far as I know, nothing has ever transpired from the result of their labours. I suggest that a new committee be formed with a broad reference and with instructions to produce a report, either *interim* or final, this time next year. On these grounds I oppose the resolution.

Mr. Inman.—My Association has instructed me to oppose the resolution. They are in general sympathy with it but consider it too drastic. Reductions have been made in the last two or three years, but the time is not ripe yet for further reduction.

Mr. Nicolls.—I have been instructed to oppose this resolution, and I entirely agree with all that Mr. Francis has said, but I believe the Nilgiri-Wynaad are bringing up a resolution on this subject which will cover the position of family labour. We are in favour of reduction of advances, in fact, we have already done so. We do, however, feel the difficulty of providing for family labour because minors cannot sign agreements, and if the family runs away to another district, it will lead to difficulties if a claim can only be made for Rs. 5 or Rs. 10 out of the whole family advance.

Mr. Reade.—Will Mr. James give us his views on the subject?

Mr. James.—I have not got any particular views on this resolution. All I say is this. At the last meeting of the U. P. A. S. I. this matter was referred to, and I said that the Government of India have under contemplation legislation, but on my own representation they have withheld this legislation. But it has been brought to my notice from time to time that advances are being reduced in districts in South

India. I do not think that the Government have at present under contemplation any immediate legislation so long as we can continue to assure them that progress is taking place in regard to the question of advance reduction, and I think it is unlikely that they will legislate. The only difficulty is that there is, in the Department of Industries and Labour of the Government of India, an extremely zealous civilian who is eager to bring in Bills with astonishing rapidity, mainly dependent upon conditions in foreign countries, and no one knows what he will do next, but I think there is absolutely no justification for attempting legislation on this particular point.

The Chairman:—Am I correct in understanding that the Nilgiri-Wynaad propose to move an amendment?

Mr. R. M. Greig:—The amendment reads as follows:—

"It is hereby agreed that on all pro-notes signed on and after a date to be fixed by the U. P. A. S. I., not later than July 1st, 1935, the maximum amount that one member of the U. P. A. S. I. may claim against another member of the U. P. A. S. I. on account of any debt owing to the claimant Estate, or to any maistry of that Estate by any one individual be Rs. 10 (Rupees Ten) per head plus way expenses (one way only) at a rate not exceeding 2 cents per mile.

"In the event of one person signing a pro-note on behalf of a family, the names of the family shall be stated on the pro-note, and in the case of one or more members of the family absconding, the maximum that can be recovered is Rs. 10 (Rupees Ten) per head, plus individual way expenses for each absconder.

"It is also agreed that the matter be reviewed annually with a view to a further reduction of the maximum sum recoverable at the earliest opportunity."

My Association feels that the Anamallai resolution is going too fast to reduce the advance to Rs. 5. At present we are unable to work on that figure. We have shown our intention to reduce further by amending the resolution in the last paragraph.

Mr. Inman:—May I ask a question? Can a new rule be passed as an amendment, that is, without notice of it being given?

Mr. James:—I understand that the basis of this proposal is that it is not considered advisable to deal with anything other than the limitation of Rs. 10, but that the mover of the resolution wants to lay down some definite regulation in regard to the method and recovery of that advance of Rs. 10 plus expenses. There appears to be a fundamental legal objection to the proposal as it stands at present, and I should think, if it is considered desirable, it would be better to look into the question from this point of view, and that this view be circulated to District Associations before any further steps are taken.

Mr. E. W. Fowke:—The proposal is illegal.

Mr. Morris:—Might I have the views and objections, if any, of the Director of the Department?

The Director:—Mr. Chairman, the only thing that I have to remark on this is that it is quite illegal as Mr. Fowke pointed out just now. You cannot put anything extra on a pro-note which is a Negotiable

Instrument. I have had a great deal of discussion lately with vakils on the subject of pro-notes altogether, and their opinion is that our method of dealing with pro-notes is not really desirable. When you take out a case on a pro-note, it is likely to be dismissed by the Magistrate. The cooly when examined pleads:—"I have received the advance to work on the estate, I got ill and ran away," or something of that sort, and then the Magistrate asks,—“What are the terms of your agreement?” The cooly replies,—“There is no agreement.” Strictly speaking, we ought to make agreement under the civil law, just as we used to when the Labour Acts were in force. Most certainly, it ought to be done ~~in the case~~ of all labour suppliers. When you come to the family man, he is, in a way, a labour supplier, supplying labour to the estate from his family. The whole question of dealing with pro-notes is a difficult one, and it is yearly growing more difficult when we take out cases against defaulters. I think the whole question should be studied more carefully before asking the U. P. A. S. I. to pass a rule in regard to pro-notes. I think it was Mr. Inman's suggestion that a committee should be formed to go into it. I think this is the most advisable thing to do. There are other side issues and difficulties, besides the legal point of view, in dealing with pro-notes.

The Chairman:—Thank you, Col. Brock. A point of order has been raised by Mr. Inman, and I must rule this amendment out of order and must ask the mover to withdraw it. In the first place, the original resolution proposed does not ask you to pass any rule at this meeting, whereas the amendment does, and in the second place, no notice has been given of the amended resolution. Therefore, I am afraid that it must be ruled out of order. Would you be prepared to withdraw the amended resolution, Mr. Greig, on the assurance that the matter will be taken up by the Executive Committee and District Associations being circulated on the lines of your resolution?

Mr. Greig:—I am not quite sure if the Anamallais will withdraw their resolution.

Mr. Reade:—We withdraw our resolution.

Mr. Greig:—I withdraw the amendment also.

Permission was granted by the Meeting to withdraw the resolution and the amendment.

TEA SCIENTIFIC DEPARTMENT.

The Chairman:—There is no resolution tabled under this heading. Are there any questions that you wish to ask?

Mr. Inman:—Some members of my Association have brought up the question as to whether the Scientific Officers cannot occasionally, say quarterly, write articles in the *Planter's Chronicle*. It is quite appreciated that these officers are hardworking men, but certain members feel that they are being neglected and do not know what is going on, and therefore they ask if that can be done.

Chairman:—As a matter of fact, you will have noticed in my address I referred to some important bulletins that are going to be issued shortly. I will ask Mr. Cameron, who is a member of the Sub-Committee, to be good enough to tell the meeting what instructions were issued to the Tea Scientific Officer in regard to issuing publications in the *Planter's Chronicle* from time to time.

Mr. Cameron:—At the last meeting of the Scientific Sub-Committee, Dr. Shaw agreed to send occasional articles to the *Planters' Chronicle*, giving information as to the work being done at Nellakota. It was also arranged that bulletins should be published giving the results of special research work. It was considered that this method of publication was more suitable for such information than articles in a fortnightly journal. It is expected that one or two of these publications will soon be issued.

The Chairman:—Does that meet with your wishes, Mr. Inman?

Mr. Inman:—Yes, sir.

The Chairman:—I would just like to point out that the Coffee Scientific Officer, Mr. Mayne, does send in monthly reports, and these are issued to Coffee District Associations. They cannot be published in the *Planters' Chronicle* because we have to take into consideration the fact that Mr. Mayne works in conjunction with the Mysore Government.

Mr. Garrett:—In this connection, I should like to suggest that more publicity should be given in regard to Tea Scientific questions, and that a meeting be arranged with Dr. Shaw at about the time of the Annual General Meeting in future. There is a lot that Dr. Shaw can tell us as regards the work that is going on which he cannot commit to paper, and I am perfectly certain that there is a good deal more he could tell us now with regard to the work of last year. I think other members might welcome the opportunity of a discussion on these lines.

The Chairman:—Shall I ask Dr. Shaw to arrange to meet you if the Executive Committee permit this to be done?

Mr. Garrett:—I was really thinking of adding that it is rather too late, and possibly Dr. Shaw might not be prepared now, but if members would like it, I think it would be a good idea to carry out this suggestion at all General Meetings in future.

QUALITY OF COFFEE.

The Chairman:—Under this heading two resolutions have been tabled, one by the Coorg Planters' Association which I shall ask them to move now.

Mr. Nicolls:—Our resolution reads as follows:—

"This Association recommends that a Bio-Chemist be employed for the purpose of investigating the subject of quality in coffee as recommended in the report submitted by Mr. Mayne, and that the cost of this investigation during the first year be met by drawing on the Coffee Reserve Fund."

As Coffee Members are probably aware, the question of investigation of quality was brought up some time ago. The U. P. A. S. I., I believe, have been in communication with London on this subject and it was proposed that an investigation could be undertaken in London at a cost of £600. The opinion given was it would take one year. With our lack of knowledge in scientific matters we were unable to come to a decision, but on the advice of Mr. Mayne it was found that it would be impossible to achieve any useful result in so short a time. Subsequently, Mr. Mayne, Dr. Pickenbrock and Dr. Shaw met together

and discussed the whole subject thoroughly and have produced a most interesting report. After reading the result of their conference we decided that it would be better to approach this subject on the lines suggested. Now, the estimated cost of this would be approximately Rs. 4,000 a year. The period over which the investigation would extend is uncertain, but, in their opinion, I think it would be something like four years. We have had, unofficially, offers from Firms interested in the coffee industry, of financial assistance, and we hope that this will materialise. Some owners of estates in North Mysore and in the Nilgiris, whose coffee fetches high prices in the London market, may not consider this necessary, but I hope that they will not, for this reason, oppose the resolution, because it will produce very useful results and prove to show, in view of what Mr. Livingstone has said on our marketing effort, that we are trying to improve the conditions of our industry in general. I would like to take this opportunity, on behalf of coffee members, of tendering our very hearty thanks to Dr. Piekenbrock, Dr. Shaw and Mr. Mayne for the trouble that they have taken in the matter. I trust that this Association will support the resolution.

Mr. Briscoe:—I second the resolution.

The Chairman:—Mr. Nicolls, might I suggest that if the proposed Coffee Board is formed, then automatically I presume their funds will be used for the purpose which you have just outlined.

Mr. Nicolls:—That is not our intention, but in the pamphlet which Mr. James drew up with regard to the formation of this Indian Coffee Cess Committee, it was thought advisable to give them fairly large powers. They need not necessarily make use of them, and in view of the fact that the amount which is likely to be raised in the coffee cess will be moderate, and will be required, probably entirely, for propaganda work and improvement of marketing, we thought it would be better, at the commencement at any rate, to draw on our reserve fund for the purpose of this resolution.

The Chairman:—Do you propose, Mr. Nicolls, to ask the Mysore Government to contribute anything? I presume the information will be available to the Mysore Government, and that the investigation will be conducted in their laboratories.

Mr. Nicolls:—It is not our intention to ask for financial assistance at the moment, but, of course, it will be welcome.

Mr. Wallace:—May I ask Mr. Nicolls whether this proposal is going to lead to a capital expenditure anywhere or is it only the appointment of a bio-chemist?

Mr. Nicolls:—May I ask Mr. Mayne to reply to this point?

Mr. Mayne:—There will be no capital expenditure because the work will be conducted in Bangalore and we need not pay anything for building. In think the Mysore Government will help us in the matter.

Mr. Wallace:—Where in Bangalore will the work be conducted?

Mr. Mayne:—In the Agricultural Department laboratories.

Mr. Garrett:—May I suggest that this proposal is subject to the sanction of the Mysore Government, and as Mr. Yegnanarayana Iyer is here, I suggest you might ask his opinion on the subject?

The Chairman:—Would you like to make any remarks about this resolution, Mr. Yegnanarayana Iyer?

Mr. Yegnanarayana Iyer:—One member asked if the Mysore Government will give any financial assistance in the matter. The whole scheme is based upon a very substantial assistance on the part of the Mysore Government. The scheme provides only for the pay of a bio-chemist to be met from the funds of the Coffee Planters' Association and a small grant for equipment and apparatus. The bio-chemist, whom the Scientific Officer has in view, is a very junior officer because the pay provided is not very much, and he will naturally have to work under the supervision and guidance of an experienced senior officer. That supervision and experience is to be afforded by the Agricultural Chemist of the Department. He will work in our laboratories. The whole of our laboratory equipment will be at his disposal, and the supervision, advice and the technological knowledge will be provided by the Agricultural Chemist himself. The Planters' Association provides only the salary and a certain amount towards the cost of special equipment. The assistance rendered by the Mysore Government is very very material at the present time. Practically the whole resources of the Agricultural Department are at the disposal of the Planters' Association. I see only Rs. 1,000 or so provided by them for special apparatus and equipment. A lot of other work upon the quality of coffee outside the scope of the bio-chemist is going to be done in the Station itself with our present staff and equipment, all of which comes from the Mysore Treasury supplemented, of course, by the coffee industry.

The Chairman:—We thank you very much for explaining the position.

Mr. Garrett:—I would just make one remark, and that is to correct an impression which Mr. Nicolls may have given during the course of his remarks. He mentioned four years as a possible period during which investigation might take place. I might point out that the report submitted by Mr. Mayne, Dr. Shaw and Dr. Piekenbrock made no mention whatever as to the time. Mr. Nicolls is perhaps getting rather confused with Dr. Coleman's report two years ago, in which he mentioned a similar period.

Mr. Nicolls:—I must plead guilty for not having read this report. When I referred to the time, I was under the impression from conversation that that was the period that was required. Perhaps I made a mistake and I must apologise.

The Chairman:—I will now put the resolution to the vote. It is proposed by Mr. Nicolls and seconded by Mr. Briscoe.

The resolution was carried.

MYSORE COFFEE ADVISORY COMMITTEE.

The Chairman:—The Mysore Planters' Association have given notice of a resolution which I will ask them to move.

Mr. Garrett:—The resolution we propose reads as follows:—

“This Association rescinds the Resolution passed at the Annual General Meeting of the U.P.A.S.I. held in Bangalore in 1931 that the coffee member of the U.P.A.S.I. Executive

Committee be appointed the U.P.A.S.I. Representative to the Advisory Committee of the Mysore Government Coffee Experimental Station."

The whole point in this is that at the present moment the Coffee Member on the Advisory Committee is in rather a false position. Actually, the Government of Mysore laid down that membership should be for a period of three years. This was somehow or other overlooked when the resolution in question was passed in Bangalore. It is a material point. Actually at the moment Mr. Newcome is the representative of the U. P. A. S. I. on the Advisory Committee, but he is on leave. The Government of Mysore have very kindly allowed me to act for him. I hope there will be no objection to this proposal.

Mr. Davis:—I second the resolution.

The resolution was put to the Meeting and carried.

The meeting adjourned for lunch at 1-5 p.m.

Second Day, Thursday, 13th September, 1934.

The Meeting re-assembled at 2-30 p.m.

The Chairman:—Before we take up the business of this meeting, I will ask the Secretary to read a letter received from Mr. Langley.

The Secretary read the letter from Mr. Langley conveying his best wishes for a successful meeting.

RUBBER SCIENTIFIC DEPARTMENT.

The Chairman:—The West Coast Planters' Association have tabled a resolution, which I will ask them to move.

Mr. Walmsley:—The resolution reads as follows:—

“ This Association is of opinion that the minimum amount necessary to run the Rubber Mycological Station at Munda-kayam is near Rs. 50,000 annually and that there is little likelihood that this amount will ever again be forthcoming. Under the circumstances it is proposed that the Executive Committee be asked to make enquiries as to the possible disposal of the buildings, plant, etc., at a price which will cover the capital amount still outstanding and not covered by depreciation.”

I have no comments to make. The resolution speaks for itself. We have a lot of valuable scientific instruments which might be of great use to other Scientific Departments, and we shall give them the first chance to purchase the materials if they require them. Much as we are sorry to propose this step, I am afraid it is the only thing to do.

The Chairman:—Does any other delegate wish to speak to this resolution?

Mr. Reade:—Will you please tell us whether the closing of the Station will affect the grant received from the Madras Government?

The Chairman:—I will ask Mr. James to reply to that question.

Mr. James:—This was one of the original items which was included in the application to Government for grant towards the Scientific Department, but in view of the fact that the grant has already been reduced, I do not see any reason why it should necessarily affect the present amount. The only point would be to take care in making the application this year that the circumstances arising out of this case be explained.

Mr. Walmsley:—May I say one word to make the position quite clear? Our Station has been shut down for the last two or three years, during which time no part of the Government grant has been utilised for rubber. It has gone entirely to the Tea and Coffee Scientific Departments.

Mr. Gillespie:—I second the resolution.

The Chairman:—I will now put the resolution to the meeting.

The resolution was carried.

Mr. Eric Hall:—I have a full inventory of the materials, etc., at the Rubber Scientific Station, and propose that it be circulated as they are for sale.

INTERNATIONAL RESTRICTION OF TEA EXPORTS.

The Chairman:—The next item on the Agenda is "Tea—General Items." There is no resolution tabled under this item, but I do not know whether any delegate wishes to ask any question?

Mr. Milner:—I have just got a small question under the Report of the International Tea Committee. According to the figures given, the exports of tea from India, Ceylon and Dutch East Indies for the year ending 31-3-34 were 170 million pounds less than for the year ending 31-3-33. Deliveries at home were 432 million pounds for both years, but stocks in the United Kingdom bonded warehouse were 276 million pounds on 31-3-34 as against 294 million pounds on 31-3-33, or a reduction of only 18 million pounds. It would seem from the figures in the report that the United Kingdom takes half the total tea exports; therefore, stocks apparently should have been reduced by half of 170 million pounds. Could the Secretary put the query to S. I. A. or perhaps the Joint Controller can give us some information? It seems that stocks should have been reduced by a higher figure, and they have not.

The Chairman:—I think, Mr. Milner, you cannot take the figures of stocks as completely accurate. Prior to the introduction of duty on tea imported into the United Kingdom there was no accurate means of calculating stocks, as nothing went through the bonded warehouses. I think that is how the discrepancy has arisen, but we will make enquiries from London.

Mr. Milner:—Thank you very much.

Mr. Mills:—There is one other item in the report of the International Committee, and that is the method of exporting tea after 31st March on the previous year's licence, which varies considerably as regards India, Ceylon and Dutch East Indies. Can you give us any information whether one system is going to be adopted to bring all producing countries into line, and if so, when? Is there any information available on the subject?

The Chairman:—It is being discussed, but as far as I know, nothing definite has yet been decided on.

GERMANY—COFFEE IMPORT RESTRICTION.

The Chairman:—I will now ask Mr. James to address you.

Mr. James:—In regard to this matter of Indo-German trade, I had a representation from U.P.A.S.I., first of all, in regard to the rumour that restriction was going to be placed upon imports of coffee into Germany. In fact, the document sent to me suggested that an actual prohibition of coffee into Germany was proposed. I took it up at once with the Government of India and this is what they say:—

"The Government of India have been watching the course of Indo-German trade with some care and when, two months ago, it was suggested that Germany, in defence of her exchange position, intended to restrict imports of Indian coffee into Germany with effect from July 1st, a very strong protest was made against such action by Germany which we have reason to believe has proved successful, at least for the time being."

When they say that "representations have proved successful, at least for the time being," they mean that there is no proposal at present, as far as this information goes, to restrict coffee imports. Subsequent to that, there was the further difficulty of the exchange restrictions which were imposed by the German Government in defence of their financial position. Here again, I should like to read an official communication which was made in the Assembly, on the day before we adjourned, in reply to the representations that I and others made on the subject:—

"Towards the end of 1933, the trend of the German trade balance gave the German Government grave cause for anxiety. In the first quarter of 1934 the situation worsened, and what had been a favourable balance had been converted by the end of March into an unfavourable balance of 54 million marks. This was due to an exceptionally large importation of raw materials, and action was taken in two ways to protect the Reichsmark from disaster. In the first place, import of raw materials from abroad was strictly controlled and, in the second place, the amount of foreign exchange available for the financing of imports was further restricted. Up to March 1st, 1934, the amount of foreign exchange available for such financing was 50 per cent. of the average requirements in 1931. Since then, the increasing difficulties of the exchange position have necessitated progressively stricter measures of control. From March 1st this year the percentage was reduced to 45 per cent., from April 1st to 35 per cent., from May 1st to 25 per cent., from June to 10 per cent., and finally from August 1st, it was reduced to 5 per cent., of the basic figure. So great has become the necessity for stricter control that the apportionment of the foreign exchange for financing imports is controlled day by day by the Reichsbank so that outgoings may never exceed incomings."

It is inevitable that such action on the part of Germany to avert disaster must tend to hamper her foreign trade and affect adversely her imports from India. Government have assured themselves at the present moment that the exchange restrictions are not directed against India alone. These restrictions are imposed in regard to the financing of imports from all countries in defence of her currency position. Before the date of this announcement, the Government of India have received complaints from tanners, from sports requisites exporters in Sialkot and from turpentine exporters. To these were added the complaints from coffee exporters. On receiving further information in regard to the restriction of exchange available for imports and the effect which it has had on some of India's exports already, the Trade Commissioner in Hamburg was asked for a full report on the circumstances adversely affecting our trade. He has been asked to report further whether any other countries enjoy more favourable treatment in respect of foreign exchange than India. That information has not yet been obtained, but the Government of India has been in communication with His Majesty's Government at home as regards the nature of the agreement, which is said to have been concluded between United Kingdom and Germany on the 10th August, in regard to this question of exchange. They have also asked for full information as to the nature of the exemptions, if any, from exchange restrictions which are enjoyed by other countries. If, on receipt of this information, it should appear that there is discrimination of any kind against India, the Government of India have promised to do all in their power to have such discrimination removed

and to place Indian exporters on an equal footing. Obviously, if the German Government feels obliged to take steps in defence of its own currency position within Germany—steps which are applicable to imports from any other part of the world—we cannot complain beyond the general point that such restrictions, though they may be necessary, interfere with international trade. The only ground on which India might have complaint is if these restrictions are levelled against her as distinct from other countries. At the moment the information with the Government of India is that there is no discriminatory restriction, but the report of the Trade Commissioner is awaited and I have been personally assured, when I represented the matter of coffee, that if it is disclosed that India is being affected in a way which does not affect other countries, the Government of India will make very strong representations. I do not think I can say anything more at the moment. All we can do is to leave it in the hands of the Government of India, sending up to that Government any examples which do come in of actual shipments being held for these reasons. It was only last night that I sent up further examples which were furnished to the U.P.A.S.I. by a Firm in Mangalore.

The Chairman:—Does any delegate wish to speak on this subject?

Mr. E. W. Fowke:—Yesterday afternoon, Dr. Piekenbrock said he would speak to us.

Dr. Piekenbrock:—Mr. James has pointed out the difficult exchange and currency conditions which, owing to the enormous decrease in German exports, have forced the German Government to adopt such severe measures of exchange restriction which, in consequence, affect the export of East Indian coffee to Germany. We, businessmen of the German community in India, have followed this development with great concern, and in general, we are able to confirm the conditions as described by Mr. James.

There are, however, two points regarding the German exchange restrictions which seem to have been imperfectly represented to the public, namely, the system of barter and the statistics on the Indo-German trade balance.

According to certain comments, the barter system seems to be an idea initiated by the German Government. When I first visited the Coorg coffee area in 1932, at a time when the German exchange difficulties were first being reflected in the world market, I heard a great number of planters complaining about the effect of the decrease in the export of East Indian coffee to the Continent, and in particular to Germany, on the East Indian coffee industry. This decrease has been viewed by them with the greatest concern. During repeated discussions on this matter since, I was asked very often in the coffee districts whether it should not be possible to keep the German coffee market open for East Indian coffee on a barter system. Further, last March, I was shown by a gentleman attached to a large British firm in South India, a pamphlet published by the London Chamber of Commerce. The idea put forward in this pamphlet proposed developing world trade along lines of barter for such a period as long as gold does not possess its real significance in trade, namely, an exchange medium in the conduct of world trade.

From this it seems that the kind of barter system now apparently followed by the President of the Reichsbank, Dr. Schacht, is not an entirely new idea. It is an inevitable necessity of the present German exchange situation if the German businessman is to retain his business integrity.

The second point of concern relates to the statistics on the Indo-German trade balance. According to German statistics this balance has been greatly in favour of India, but this fact is not supported by the Indian statistics. According to an authoritative investigation, the Indian and German statistics compare as follows for the last five years:—Imports from Germany into India—German statistics—in millions of Reichsmark—in 1929:—220; in 1930:—190; in 1931:—158; in 1932:—109; and in 1933:—87.

Indian statistics—in millions of rupees—in 1929:—157; in 1930:—124; in 1931:—104; in 1932:—104; and in 1933:—89.

Imports from India into Germany—German statistics—in millions of Reichsmark—in 1929:—624; in 1930:—429; in 1931:—281; in 1932:—159; and in 1933:—154.

Indian statistics—in millions of rupees—in 1929:—266; in 1930:—143; in 1931:—103; in 1932:—86; and in 1933:—95.

For the years 1929–31, the rate of exchange rupee to Reichsmark must be considered. Before Great Britain went off the gold standard in September, 1931, the exchange stood roughly at the rate of Reichsmark 1.50 per rupee. Since then, however, the Reichsmark has become equivalent to the rupee which renders a comparison for the years 1932 and 1933 easier.

According to these statistics the figures relating to German exports into India are in entire agreement, whereas those on the Indian exports to Germany show a discrepancy for 1933 of as much as 60 per cent. Apparently, there must be an error somewhere and it seems advisable to scrutinise these figures again from both sides before they are made use of from one side or the other in the public discussion on the Indo-German trade balance.

It is suggested by German authorities in Calcutta that the reason for this discrepancy is to be found in the shipping routine, to make the shipping documents out in the name of the country of final shipping destination, that is, the country to which the goods exported from India are intended to pass, whether by sea or by land or by sea only, without interruption of transit, save in the course of transshipment or transfer from one conveyance to another. It is, therefore, possible that the goods which have been re-exported from the country of shipping destination to Germany do not appear in the Indian statistics; for instance, goods with shipping documents made out in the name of London, Rotterdam and Antwerp. Such goods re-exported to Germany are naturally shown in the German statistics with regard to the import of Indian tea into Germany *via* Great Britain, and the statistics indicate this fact.

I beg your pardon for having enlarged these points to such an extent, but these points must be taken into consideration in considering the German exchange restriction, in particular the restriction on coffee.

With regard to the latter, regrettable as the past may be, at present the German Government seems to be under such a pressure of a shortage of vital raw materials as to be forced to use the available exchange primarily for such raw materials.

On the other hand, as you know, the German people are a coffee drinking nation, which, in normal years, imported coffee to the value of Rs. 70 to 80 millions per annum of which coffee to the value of Rs. 1 million was imported from India. There is every reason to believe that Germany does not intend changing the custom of drinking coffee, and that every effort is being made to make the import of coffee into Germany possible, since, under the present situation, a liberal distribution of exchange for the import of coffee seems hardly possible. Owing to the conditions already mentioned, other methods should be tried, that is, additional markets for German goods found against which coffee can be imported. At first sight, this seems to be a great difficulty which, however, it should be possible to overcome. I think the German Government will consider any proposals on such lines with great sympathy in order to re-establish or enhance coffee trade relationships with India with whom significant trade has always existed with mutual benefits.

Mr. Pitcairn:—We all observe with great concern this development of Germany's foreign trade policy, and it would appear that behind it there is some intention of adopting the system of barter as a basis of a trade agreement. Recently I had occasion to go into figures of exports and imports from the West Coast between South India and Germany, and I am sure you will be interested to hear that, for the year ending March, 1934, the exports from Mangalore, Tellicherry, Calicut, Cochin and Alappay amounted to approximately Rs. 40 lakhs to Germany and the imports to Rs. 8 lakhs. So far as this part of India is concerned—the West Coast—the balance of trade is very definitely in favour of India and against Germany. If an agreement is developed, it would be of the utmost importance in the interests of the coffee planter, and the merchant on the West Coast, and strong representations be made to the Central Government to ensure that these important interests are adequately protected in that agreement.

Mr. James:—I should like to add one word to what Mr. Pitcairn has said. I do not know whether any of you followed the proceedings in the Assembly of last March when we had a discussion on what is called "Economic Planning." The European Group in the Assembly sponsored that debate and one of the main points which we mentioned was this—that we believe India to be in for an era of trade agreements on the basis of quotas—and therefore we suggested that the Department dealing with those matters to be so strengthened as to meet these new conditions. Our prophesy is rapidly being fulfilled. The Italian Government has already expressed a desire to open negotiations for a trade agreement with India. You have heard from Dr. Piekenbrock that it may soon be the desire of the German Government to follow that general line, and to secure some definite agreement with this country which will have as its basis an exchange of goods so as to equalise the balance of trade between each country. Mr. Pitcairn hit the nail on the head when he said that in these negotiations it is most important that the interests of the agricultural community in South India should be watched very closely indeed, so that we can be, sure

of sharing any advantages India may get in the way of exports to those countries. I can assure you that as far as I am concerned, and the European Group in the Assembly, we shall lose no opportunity of advancing this point of view. The basis of this type of agreement has been reached to some extent in the Indo-Japanese Agreement, where we have an exchange of definite maximum quotas. Our Indian friends are already agitating for something of a similar nature in regard to any future agreement with the United Kingdom, and I think it is extremely important that this position should be watched as far as our interests down here are concerned. I mentioned this point the other day to the Executive Committee, and advised that it would be important for representations to be made at once officially to the Government of India in connection with the forthcoming negotiations between Italy and India, so that the position with regard to tea, coffee and any other commodity in which we are particularly interested should be watched and our interests safeguarded by the Government of India.

Dr. Piekenbrock:—I have to mention that there is no official authority for whatever I have said here.

RUBBER—RESTRICTION OF EXPORTS.

The Chairman:—The Mundakayam Planters' Association have tabled a resolution which I will ask their delegate to move.

Mr. Murphy:—The resolution of which notice was given by the Mundakayam Planters' Association may appear to some of you to be unnecessary. You may very naturally think that the Association is bound, as a matter of course, to do everything possible to have altered what is admitted on all sides in India to be an inequitable quota. Unfortunately, the Executive Committee, after having completely failed to safeguard the interests of South India before the Restriction Scheme was made public, have handed over everything in connection with it to the Rubber Licensing Committee. That they failed to safeguard the interests of South India is shown by the fact that exports from the Travancore port, Alleppey, were not allowed for by the International Committee, and this omission does not appear to have been discovered until the quotas were published in May. The Committee did not trouble to enquire through District Associations and through the Indian Planters' Association for Kerala as to the probable rubber acreage not included in official statistics and did not raise any objection to the quota having been calculated on the average annual exports over a number of years including one during which South India practically ceased to tap. Early in this year, an *ad hoc* Committee was appointed without District Associations having been consulted and to this Committee was left the all-important decision as to whether the Restriction Scheme, including the quotas, should be accepted or not. That everything in connection with Rubber Restriction has been handed over to the Rubber Licensing Committee was stated by the Association's Secretary in a letter to a Coast Firm dated the 26th June and again in a letter to me dated the 18th August. The Rubber Licensing Committee is not an Association Committee. It is in no way responsible to the Association and I claim that the Executive Committee had no right to hand over our interests to it.

Objection has been taken to letters having been sent to the public Press on the quota question. I would like to know how else rubber growers could have obtained a hearing? It has also been said that

the letters were unnecessary. If they were unnecessary, if the agitation against the quota was uncalled for, why did Mr. Bajpai state at Simla that while a scheme was being considered no complaints were made by South India. Why did the present Chairman of the Rubber Licensing Committee say in the Travancore Legislative Assembly, "I think we have come out reasonably successful in our quota?" How was it then that Mr. F. E. James, according to a letter I have received from him, did not know until August that South India was not satisfied? The agitation against the quota was most necessary and the thanks of all rubber growers are due to the *Madras Mail* for the support given to South India's case.

As it is now freely admitted out here that an unintentional injustice was done to South India by the International Committee, owing to want of proper information, it is unnecessary for me to trouble you with figures, and I think that the question of what should be done to obtain fair treatment—nothing more is asked for—can be discussed better in committee than in open meeting. There remains then only one other matter to be mentioned. Mr. James, to whom we are grateful for the amendments obtained to the Rubber Control Bill, is reported as having said at Simla, after discussing the quotas, that the *ad hoc* Committee had the proposals before it and circulated the proposals to all known estates with the request that by a certain date they would signify their opinion on these proposals. Undoubtedly if Mr. James was correctly reported, the proposals referred to by him included quotas and his statement, therefore, was inaccurate and misleading. Although the quota figures were known to the Executive Committee of this Association in January or February, they were not made known to the people they really affect until May when complaints as to South India's treatment were at once made. I trust that Mr. James will publicly withdraw the statement attributed to him and will inform the Government of India of the mistake. I, therefore, propose:—

"That no efforts be spared by this Association in endeavouring to obtain for South India an equitable export quota under the Rubber Control Bill."

Mr. Walmesley:—I second the resolution. I ask you to bear with me for a short time because I would like everyone to know what the real facts are. After the various Governments concerned had failed to find a scheme of Regulation of Rubber exports acceptable to all interests and had declared that they were prepared to do no more, certain gentlemen interested in the rubber industry were forced, owing to the state into which the industry had fallen which in this country had resulted in the practical cessation of rubber production, to take up the matter again and try to find some way out of the difficulty. That a method was found more or less acceptable to all was a tribute to the principles of co-operation and give and take, and it is to be hoped that everyone with an interest in rubber will agree that they owe a great deal to these gentlemen and subsequently to the Producers' Associations who worked so hard to bring success to the agreement. I do not suppose that anyone will not believe that, in so far as facts were known, everyone, including the smallest producers such as India, were treated with scrupulous fairness.

The first news of the proposals which have since become the present Regulation Agreement was contained in a letter from the Chairman

of the Rubber Growers' Association of London addressed to the Chairman of the U. P. A. S. I. All letters were marked "private and confidential," and continued to be so marked until the publication of the scheme, after the acceptance by the various committees who represented the bulk of the producers in the British, Dutch and French Eastern Empires and other interested countries.

The letters received stated that the draft Agreement was the result of prolonged International discussion, and that each of the parties had to make concessions and to accept compromises, and that any change would have to be submitted to the different participating territories, and the consequent renewal of International discussions might endanger, if not entirely end, the co-operative action which had been so successful. The Chairman of the R. G. A. stated that, with respect to South India, the Chairman and another member of the South Indian Association had been consulted and had approved the figures for South India.

The U. P. A. S. I. appointed a Committee under the Chairmanship of Mr. Langley, who was the Planting Member of the Madras Legislative Council and whose firm were connected with the majority of the estates in British India. Mr. Lampard, whose position in Travancore was the same as that of Mr. Langley in Malabar, was asked to act. Mr. Walmesley, who had been over 20 years in Cochin and was the Manager of the largest Estate in Cochin, was invited to represent that territory, and two leading Travancore Rubber Planters were asked to complete the Committee. Subsequently, beyond giving all possible help to the Committee, the U. P. A. S. I. left matters to this Committee to handle and took no further direct part in the discussions.

The first papers received informed the Committee that certain figures had been arrived at for each country and that the quotas had been fixed on the basis of these figures with the help of statisticians.

No figures were supplied to the Committee except the quota figures for South India and at first these figures were incorrectly assumed to be fixed allowances for the period of the agreement and were considered satisfactory.

When this was corrected, the amount of the quota was the subject for correspondence and opinions differed greatly. One member was definitely of opinion that the quota was very satisfactory. My own opinion was one of doubt as I accepted the U. P. A. S. I. export figures, which have subsequently been proved to be correct, and though unaware of the extent of planting in Travancore, I knew that much land had been planted up.

The matter was taken up with London by letter and assurances continued to be received that Indian interests were being adequately safeguarded. No further information was made available until the quota figures for other countries were received late in February when some form of comparison was for the first time possible, though this was necessarily a matter of guess work.

In April, Mr. Langley went to Europe and I succeeded him as Chairman and, as doubts about the Indian quota were growing, I called as soon as possible, the first Meeting of the Committee to be held, and a telegram was sent to London on the 5th May giving rough estimates of the potential output and acreage under rubber in South India. To this

an answer was received stating that potential output was not the basis of the International agreement and questioning our acreage figures.

Much correspondence followed, and it was established that the Blue Book published by the Government of India entitled "India Rubber Statistics, 1932" was the basis used for the calculation of the South India quota.

It was evidently assumed in London that this Government publication was complete whereas it is far from being so. The production figures are fairly complete, but export figures are given for British India only, and those of the Port of Alleppey, which for the period of four years taken into consideration by the International Scheme average 933 tons per annum, are not given. The acreage figures are fairly complete for lands specially leased for rubber cultivation, but do not include those private lands planted up with rubber and not specially leased or taxed for this product.

It was only on the 28th of May that the Committee obtained the information from London that the International basis agreed on for quota calculations was the average exports for the years 1929 to 1932 plus an allowance for immature areas.

As regards exports, the Committee obtained an admission on the 29th of June, after much correspondence, that in the first place the quota figures were calculated on the exports given in the Blue Book, "Indian Rubber Statistics, 1932." They added that these figures did not include Alleppey exports but that the production figures did give the full figures of production. The discrepancy between the export and production figures was noticed, and an *ex gratia* allowance was added to compensate for the difference between the figures.

If a reference had been made to the Commerce Department of the Government of India, who were in possession of the Alleppey export figures, or to the U. P. A. S. I. when this discrepancy was noted, an explanation would have been given immediately, and the addition of an unstated *ex gratia* amount would have been unnecessary.

The actual export figures from British India, Travancore and Burma ports for the period, we are told, was taken into consideration are as follows, according to the Government of India figures for these countries,

	British India.	Alleppey.	Burma.
1929-30			
to	14,757 tons	3,733 tons	19,505 tons
1932-33			

The highest year's exports from British India and Travancore ports were in 1929-30 when a total of 7,370 tons were shipped and the highest from Burma were in 1930-31 when 5,511 tons were shipped.

The reason why the Burma shipments exceed the combined Indian exports over the period is that Indian shipments in 1932-33 fell away to 651 tons while Burma shipments only fell to 2,612 tons.

All the figures given are for the financial year and are calculated to the nearest ton.

The figures used by the R. G. A. and the International Committee are in all cases for the calendar year.

The calendar year figures collected by the U. P. A. S. I. and which have been repeatedly checked give the highest year's exports as 7,818 tons in 1929 and a total of exports from 1929 to 1932 of 21,110 tons.

A possible explanation for the difference is that in each case the Government figures cover a period later than do the U. P. A. S. I. figures and exports were steadily falling for the whole period.

The Committee were informed on the 28th May that, calculated on the International Agreement basis, the India-Burma quota amounted to 72,001 tons for the period of the regulation agreement 1934 to 1938, but that the *ex gratia* amount already referred to had been added and that the total allowed amounted to 80,500 tons. This *ex gratia* amount of 8,499 tons is greater than the Alleppey exports which, for the period 1929 to 1932, were, according to the Government of India figures, 3,733 tons. If this explanation is accepted, and it is acknowledged that something over and above what would have been added in any case has been given, then it would appear that South India had no grounds for complaint on the score of exports.

The question of acreage is however an entirely different matter. The acreage according to the Blue Book already referred to is in all, for British India and the Indian States, 70,986 acres.

The applications received by the Licensing Committee amount to 140,000 acres. This figure will be reduced by individual assessment, as it is the practice of many of the small holders to apply for at least the acreage they originally planted and also to claim for the total number of trees put out 1926 or thereabouts, when investigation shows that practically the whole of the large increase in area particularly in Travancore took place. Many properties have had fire through them and all have suffered greatly from neglect during the last few years. A number have no value as Rubber producers at all. The opinion of the members of the Licensing Committee at present is that this acreage will be reduced to about 120,000 acres, but until the assessment is completed it is quite impossible to give a figure in any way reliable. It is not expected that the assessment can be completed before the end of September at the earliest. In my opinion a fair allowance for the additional acreage disclosed of about 50,000 acres would average about 3,500 tons per annum. At this figure our estimated exportable quota would be raised by 50% this year and if the existing estimate of 45% proves correct we should then be able to export 67% and would be on a level with what is said to be the probable percentage of restriction in Ceylon.

It must be noted that we have not yet got definite figures of our acreage percentage of restriction, nor the percentage of restriction in Ceylon or in any other country, and it is not possible to give accurate figures. Any estimate must be only approximate.

There is no doubt that the statistics used for calculating the South India quota were incomplete, and I suggest that this Association should ask the Governments of India, Madras, Travancore and Cochin to press for an assurance that, when we can give authenticated figures, these will be referred back to the statisticians, who originally worked out the quotas, and an allowance be given for the extra acreage at the agreed International rates.

We were told in a letter signed by the Secretary of the R.G.A. that nothing can be done. I am not prepared to accept this statement, but believe if an application to the International Committee would raise difficult international questions that it should be possible to come to terms with the other members of the British Empire Group and ask them to rectify the obvious mistake which had been made, at the expense of not over 3,500 tons out of their total quota for the first year of over 600,000 tons which is about $\frac{1}{2}$ of 1%.

I think we are fortunate in the action taken by the Government of India in passing the Bill for one year only, and if the respective Bills come up in the Assemblies of Cochin and Travancore before anything more has been done, I hope this meeting will express an opinion in favour of similar action. It would show our desire to join in the co-operative action which has resulted in what has been generally agreed is a satisfactory workable scheme, but at the same time show our determination not to be penalised by the use of incomplete statistics when our quota was calculated.

It is to be greatly hoped that the meeting will not go beyond insistence on fair and equal treatment and the re-adjustment of our quota in view of the corrected statistics.

If we should demand special treatment, as has been advocated in the Press, both on account of the poverty of our yields and the richness of our labour supply and for many other reasons, I think we cannot hope that our fellow British citizens will sympathize much, and the matter would have to be pressed in the International Committee. Once the precedent of revision there had been established, there would undoubtedly be further claims made with a grave risk of the breakdown of the agreement which has, in a short time, raised prices from a level at which no one could work to a price at which even under present circumstances allows a profit. Mr. Chairman, may I say one thing? In what I have said I want to make it perfectly clear that I take full responsibility for every remark I have made, and should anything be incorrect that is my mistake. (*Applause.*)

Mr. James:—I think, perhaps, I ought to explain the part which I have taken in connection with the passing of the Rubber Control Bill in the Indian Legislature. First of all, I want to make one personal reference if you will forgive it. I went home to England, on 20th May, on 6 months' leave, and it was at the request of the U.P.A.S.I. that I returned in July to this country in order to be in the Legislative Assembly when the Rubber Control Bill came up. While I was in London, I had a discussion with the members of the Committee of the R.G.A. and was then made aware of the difficulty that was felt in regard to South India; but I was not aware of the extent to which that difficulty had been felt until I got back to Simla in August, because I had not been in touch with the papers in South India and was unable, therefore, to follow the letters in the Press. I was much indebted to Mr. Murphy for his courtesy in sending me cuttings from the *Madras Mail* early in August, which indicated the lines on which there was great dissatisfaction. Now this Rubber Control Bill owes its existence to a very large extent to the proposals which I made to Government in the early part of the year in order to provide them with some idea of the machinery which they might use to make effective the control of exports should the International Agreement be signed. In fact the Bill, as it now stands, is

almost entirely based on the original draft which was sent to the Government of India subject to subsequent modifications. As soon as I received information, not only from planting friends like Mr. Murphy but also from the Chairman of the South Indian Rubber Licensing Committee, who from the very beginning of its existence has not failed to keep me advised of the situation, as soon as I received this information, I took the matter up with the Government of India. It was due to my suggestion that the actual figures fixed by the International Committee for South India's quota were omitted from the body of the Bill, and I do not think I am betraying a secret when I tell this meeting that it was not an easier task. In the first place we had to deal with the Burma representative advocating Burma interests, who first was not altogether willing that the figure should be omitted. I then had also to deal with the Government of India who said that the agreement had been signed by His Majesty's Government on behalf of the Government of India and that, therefore, the figures should be included.

The difficulties were such that I had to go to the Executive Council of the Viceroy and the Executive Council were not willing to agree to the omission of this clause without the agreement of the Viceroy himself. I had, therefore, to go to the Viceroy himself and place this matter before him. I am glad to be able to tell you that I succeeded in getting his agreement to the omission of the quota for 1935 and subsequent years.

Now the object of obtaining the omission of these figures was that the door might be left open as far as the Government of India is concerned to represent the grievances of South India, which, even at that time, appeared to me to have, *prima facie*, a good case. I have all along taken the line that if there is any injustice, then it is only right that that injustice should be represented. The omission of the figures in the Bill makes it possible for the Government of India, through their own High Commissioner, to take the matter as far as the International Committee if, on completion of the enquiry that is now being made, it is found, (as I believe it will be found) that there is a case to be presented to that Committee. I do claim, therefore, and I am indebted to Mr. Murphy for having admitted that point, that in the modification of the Bill we have done some service to rubber producers in South India.

Now, Sir, as far as my own speech is concerned, I take exactly the same line that Mr. Walmesley takes; that if I have made any mistakes, I take responsibility for them. But I am unwilling to admit that mistakes have been made. My speech as a whole has been somewhat misunderstood. Perhaps it is due to the fact that, as I knew Rubber producers in South India were interested, I sought the courtesy of the *Madras Mail* to have my speech printed in full, so that it does appear out of its context in relation to the debate which was proceeding in the Assembly. Now I had to intervene in the debate for two reasons. The first reason was that the debate had taken a somewhat racial turn, and it had been hinted—in fact it was definitely stated by two Indian members—that the International Agreement only aimed at benefiting the British producers at the expense of Indian producers in South India. We all know how unfair and untrue that statement is, but naturally that statement, coming as it did from responsible Assembly members, created a certain atmosphere in the Assembly which I tried to dispel.

In my speech there is a reference to the fact that the proposals were circulated to the producers. If the whole of my speech is read it will

be generally understood that when I spoke of "the proposals" I only referred to the general proposals, and did not refer to the quota. Later on in the speech I said that, while the producers as a whole gave their assent to the general scheme, there was considerable dissatisfaction on the part of both European and Indian planters in regard to the figures on which the original calculations were made. If I had meant by "the proposals", the quota, I could not have gone on to say that the producers felt dissatisfaction on the point of the quota figures. I am, however, prepared to admit that anyone not reading the full speech and not appreciating its context might have misunderstood these "proposals". In that same speech I went on to say that "it is important that if we are to have any case put before the International Committee, that that case should be based upon the knowledge of facts". I further said that "we must await the arrival of the correct figures in regard to the acreage which could not be obtained until mid-September before going forward to the International Committee through the Government of India with the claim for a revision of the basic quota as far as South India is concerned." I also went on in the latter portion of my speech to refer to this matter once more. I had to contradict the assertion of one member in which he said that the figures for Malabar were completely wrong and were lakhs out. Actually the figures for Malabar come very near the mark, but in closing that paragraph I said "having said all that, I would join my hon'ble friend Mr. Thampan (who represents the Malabar District) in asking the Government of India to give the fullest consideration to the representations which will no doubt be made by the Travancore Government and by the Cochin Government and by the producers in both these States in regard to the quota figures for South India."

I went on in the concluding paragraph of my speech to say—"I do not believe, as some have said, that the door is absolutely closed. If our representative on the International Committee is supplied with the case for the producers in South India, I am quite sure that with his authority as representing the Government of India, with the knowledge which he will have, and with the support of the industry behind him, he will be able to make an impression upon his colleagues on the Committee". I went on to say—"If we can feel satisfied—and I am sure we can—after this Bill has been modified in the direction which my friend Mr. Bajpai mentioned in his speech, leaving the door open to an alteration of the quota that the Government of India will support a reconsideration of the claim of South India to some modification, then I am quite sure that will go a long way to satisfy those who feel discontented at the moment". I do claim that in the speech, speaking in debate and not from written notes, I made the position of South India as clear as possible, and I put forward its case for a revision of their quota.

Now, reference was made by Mr. Bajpai in his speech that, as far as he knew, the Government of India had not received any direct representations in the matter from producers, quite apart from myself and from the South Indian Licensing Committee. I think Mr. Murphy was one of the few who did me the courtesy of writing to me direct and put his point of view. Others have attacked me in the Press; but they have not done me the same courtesy in putting their views before me, so that I received no representations from them. One question raised was that, under the circumstances, was it wise to have this Rubber Control Bill passed at the present time? While I was confronted with that question from one or two quarters, my own view was that it would

have been unwise to have done anything to delay its passage. First of all the Government of India, I think, would have been unwilling to delay because they had put their signature to the International Agreement. Secondly, and this is a consideration that has not been given prominence in South India, the Government of India is responsible for the whole of British India, which includes Burma, and if you look at the figures for British India alone, by far the greater acreage is in Burma. Burma was not prepared to agree to this Bill being postponed, and therefore the Government of India could not have agreed to any such suggestion even if it had been made. There is the further point that in signing the International Agreement there were two notes attached to the High Commissioner's signature. One of these notes refers to the position of the Indian States, and to make it quite clear, that the Government of India could not undertake on behalf of Indian States any measure of restriction as that was a matter for Indian States themselves to deal with. But the note went on to say that the Government of India had no reason to suppose that the Indian States would not agree to restriction or would not agree to take a similar action in their own territories. That statement at the foot of the Agreement was based upon definite information which the Government of India had in regard to the attitude of the Indian States. As far as this resolution is concerned, we are all in absolute agreement with one another. In this connection I do commend to you the motto which I think is our own, namely, "unity is strength". All our energy should be directed, not so much to criticising one another or to saying that this or that should not have been done, but to rallying round those who are charged with the task of preparing the case to go before the International Committee. Not one of us disagrees with the view that if there is injustice it should be rectified. As you have heard from Mr. Walmsley, those who have been charged with this matter have realised this and are leaving no stone unturned to see that any injustice is speedily dealt with. I hope, therefore, that the meeting, in that spirit, will pass this resolution, and that the U.P.A.S.I. as an organisation will do all it can, use all its strength and all its undoubted influence on the side of those who feel that an injustice has been done, so that our case can go to the International Committee as a united case representing the desires of all producers, whether they are European or Indian. (*Applause.*)

Mr. Murphy:—I think, Mr. Chairman, we must all thank Mr. James. As far as I am concerned and my friends are concerned in this matter, we desire justice done. We desire to unite with this Association. Our claim is this, that, we hope, the U.P.A.S.I. will do everything possible to rectify the injustice.

Mr. Walmsley:—There is one point I would like to refer to, and that is, that the U.P.A.S.I. has been very much criticised for leaving the matter in the hands of the Licensing Committee. The first complaint was that it was left in the hands of the Ad Hoc Committee. Now as far as the Ad Hoc Committee is concerned, it was entirely an U.P.A.S.I. Committee. I remember supporting Mr. Murphy some years ago when he contended that Rubber matters should be left to Rubber planters, and that is what the U.P.A.S.I. did. I think now that the Licensing Committee should concern itself with the administration of the scheme, and leave the U.P.A.S.I. to continue the efforts for a revision of the quota, which were started by the Ad Hoc Committee.

Mr. Murphy:—There is no charge against the Ad Hoc Committee, but it is against the Rubber Licensing Committee.

Mr. Eric Hall:—I do not wish to elaborate on what has been said by Mr. James and Mr. Walmesley, but there are one or two points which have been omitted. The membership of this Association at the time when negotiations were going on was about 22,000 acres and the interests of these 22,000 acres have been looked after by us. If a member of this Association has any grievance, I take it his duty is to communicate his sense of inequity to the U.P.A.S.I. and not go to the Press and publish alarmist matter. I think everyone, Tea, Coffee or Rubber interests, should communicate their grievances, if any, to the U.P.A.S.I. and I am quite sure they will be redressed. The majority of the letters written to the Press recently contain utter drivel regarding Rubber, and it is obvious that they were merely intended to stir up strife. It was beneath the dignity of the U.P.A.S.I. to reply to them.

The Chairman:—Before putting the resolution to the vote I should just like to say a few words personally regarding the work done by the members of the Ad Hoc Committee which is now of course the Licensing Committee. I think very few of us realise the amount of work those individuals have done for us and for the rubber industry in general. Mr. Walmesley and Mr. Lampard, the Chairman of the Licensing Committee, have been working on this subject for very many months very hard indeed. People might imagine that nothing had been done by the Ad Hoc and Licensing Committees to try and rectify the injustice that has been done to South India. I can assure you that they have been in negotiation both with London and with the Government of India to try to get this matter put right. Their negotiations started long before any articles appeared in the Press. I should just like to put on record the appreciation of this meeting for all that they have done. (*Applause.*)

Mr. Lampard:—I am in rather a difficult position as far as the Licensing Committee is concerned, because I am acting in three capacities—one as Chairman of the Licensing Committee, and I think you will agree it is no part of the Licensing Committee to publish our deliberations. As the Chairman of the Committee I have tried to keep the U.P.A.S.I. posted up to date with what we have been doing. As Planting Member in the Travancore State Council, I have been called upon a good many times by the Travancore Government to state what we are doing. My experience has taught me that it is very much easier to make up a destructive case than a constructive case. We were not in a position at first to check the quota figures and see where mistakes had been made, but I think that absolute justice was intended and done to us on the information available. The omission of Alleppey shipments is unfortunate and I cannot explain how it occurred. As regards the acreage figures, the Ad Hoc Committee at first started to collect figures in South India and we arrived at a figure of 88,000 acres. In doing so we exercised the utmost care. The official figures are 71,000 acres and it now transpires that the figure will probably be 100,000 acres or more. If our original estimate had been accepted we should have got a quota for 88,000 acres and, if that figure had been passed, every one would probably have been satisfied, but we preferred to wait and arrive at actual facts before presenting our case. As the Planting Member in Travancore, the Travancore Government has asked me on several occasions to deal with petitions they have received and I have

tried to do so. The position now is that we know the acreage was very much underestimated, and the Chief Secretary to the Government of Travancore, who has been most courteous and considerate in every respect asked if I could suggest the lines on which the Travancore Government should ask for protection. I then met Messrs. Murphy and Vincent, and I think I am right in saying that they are convinced of the genuineness of my representations, and I have every reason to think that the Travancore Government will put up a very good case, and, with Mr. James' assistance, I hope they will be successful. One thing more I should like to make a special reference to, and that is to our Controller, Mr. Kurien John. When the Committee was formed, I was asked to suggest a name, and I cannot but express our appreciation of the excellent work he has done, and we all feel grateful to him for the time he has given to that work.

Mr. Eric Hall:—I think we should not allow this opportunity to pass without referring to the men who have worked so hard on our behalf in London. I wish our thanks and appreciation to be recorded. The fact is that Estates which last year were being worked at a loss are now showing a profit.

The Chairman:—Before I put the resolution to the vote, has any other delegate anything further to speak on the subject. Mr. Murphy, do you wish to reply to any points raised?

Mr. Murphy:—I strongly object to Mr. Hall's statement that what appeared in the Press is "drivel". I cannot understand how else one can ventilate his grievances except through the Press, especially due to the delay on the part of the U.P.A.S.I. in replying to letters. This has been my experience, as a letter dated the 25th August, which I sent to the U.P.A.S.I., was only replied to to-day. Without doubt I appreciate the good work done by Mr. Kurien John, which Mr. Lampard has referred to. However, I must point out that an injustice has been done.

The Chairman:—The delay in replying to your letter, Mr. Murphy, was due to the fact that it had to be circulated to the Executive Committee, and immediately replies were received from the Committee, a reply was forwarded to you.

Mr. Walmsley:—May I ask one question? Had any Planting Association raised any objection?

The Chairman:—We have not received a single reference on the subject from any District Associations.

Mr. Murphy:—The South Travancore Association consisting almost entirely of Malayalam Company Estates would not likely be willing to oppose Mr. Lampard who is the Chief of the Malayalam Company. It was only when my Company recently re-joined the Mundakayam Planters' Association, which was also controlled by the Malayalam Company previously, that there was any opposition.

Mr. Lampard:—I hope Mr. Murphy does not aim at the Malayalam Company's interests! (*Laughter.*)

The Chairman:—I will now put the resolution, proposed by Mr. Murphy and seconded by Mr. Walmsley, to the meeting.

The resolution was carried.

The Chairman:—The next item on the agenda is "Rubber—other items", if any.

CEARA RUBBER.

Mr. Nicolls:—I have received a letter from Mr. Tipping of Coorg enclosing copy of a petition on the subject of Ceara rubber producers in South Coorg, which he wishes to forward to the Viceroy. I see in it details as to the fact that Ceara rubber in Coorg has not received consideration. I have no remarks to offer because my knowledge of Ceara rubber is poor.

Mr. James:—I also received a letter in similar terms this morning, and I wonder whether anything has been addressed to the Rubber Licensing Committee before the matter is placed before the Viceroy?

The Chairman:—Mr. Lampard, can you inform us if the Licensing Committee was approached on this matter?

Mr. Lampard:—No, Mr. Chairman, but in connection with Ceara rubber, it is provided in the International Agreement and in the Rubber Control Bill that Ceara is to be taken into consideration, and the Committee have taken it into consideration; but the trouble is that we can get no information or facts in regard to Ceara rubber. The statistics in the Blue Book of 1932 give certain acreages and certain production of Ceara rubber. The Travancore Government have been unable to help us in the matter and we can find no Ceara rubber in Travancore. Moreover, the statistics of Ceara rubber appear to be incorrect. In the Statistics for 1930, there is a figure of 3,064 acres reported in previous years, but then stated to be "not workable, and therefore left out of the Statistics". If correct information is available, I shall be only too glad to have it. The question is merely postponed for want of information.

The Chairman:—Does that satisfy you, Mr. Nicolls, and will you pass on the information to Mr. Tipping?

Mr. Nicolls:—Yes, Sir, I will send a telegram to Mr. Tipping.

DISTRICT ASSOCIATION MEMBERSHIP.

The Chairman:—This item has been included on the Agenda to invite a general discussion on the subject. Mr. James has discussed the subject in London with the South Indian Association and I will ask him to address you on the subject.

Mr. James:—I think, Mr. Chairman, the note on District Association membership was circulated to the District Associations over the signature of the Secretary as a result of the discussion at the last Annual Meeting of the U.P.A.S.I. It was generally agreed that it would be a good thing if some method could be devised whereby the entry of Indian planters to our District Associations might be facilitated. It is admitted that the Indian planter is not usually willing to impose on himself the same amount of taxation for his own self-defence as the European planter; yet it is recognised that, in view of approaching conditions, it is important to leave no stone unturned to make it possible for Indian planters to join District Associations and, through District Associations, the U.P.A.S.I. That was the basis of this particular note. I had the privilege of being present at a meeting of the South Indian Association in London when it was discussed. The general feeling was that something along these lines might be attempted and the results awaited.

There are just two observations I should like to make. First, if anything along these lines is adopted, the subscription should be as low as

possible. Secondly, that Indian planters coming in on that basis of membership should be given every possible facility to take part in the discussions. This privilege will probably be more welcome to and appreciated by Indian planters than any other privilege. Therefore, I do not think it is advisable to impose too many restrictions upon their taking part in discussions, as has been suggested in this note.

Mr. Nicolls:—In contemplating extending membership, the note does not specify Indian Planters, so does that mean that European planters would be debarred from becoming Associate Members?

The Chairman:—Europeans would not be debarred under these circumstances.

Mr. C. L. Greig:—Might I ask a question under clause 1 of this note—"Right to attend and speak at meetings and to vote on general subjects". It is not clear to my Association exactly how they vote. Will it be on a poll basis?

The Chairman:—They carry one vote per member.

Mr. C. L. Greig:—My Association has a very large number of Indian small holders who are interested in planting and it is quite possible that if a question like the possibility or otherwise of Restriction of Tea Crop were sent to District Associations for their suggestion, there may be 2,000 or 3,000 Badagas who will join the Association in order to oppose the proposal. The voting powers of such members are not clear. They should either be on the same footing as private members or subscribe on an acreage basis.

Mr. Garrett:—We have not had time to discuss this matter properly in Mysore, but our Executive Committee have dealt with it, and they are definitely opposed to the idea. We also have a large number of European planters who are not members of our Association and we do not want particularly to encourage them to join on these terms. Likewise, there is the other possibility, that is, a number of European planters who are our members now might be induced to resign from full membership and join on these easy terms. I trust there will not be many who will be inclined to take this attitude. Apart from that, however low you put this subscription for Associate membership, I do not really think that many of the Indian planters would be attracted. They have in Mysore the North Indian Planters' Association. They have no subscription whatever, and yet I believe a very large number of the Indian planters are not members of that Association. It exists to all intents and purposes for the sake of meeting once a year and electing a member on the Legislative Council. Under the circumstances, I do not think there is any use of trying to encourage Indians to join us. Apart from that, I should like to mention that the Government of Mysore do encourage us to retain our individuality as the European Planters' Association. I am perfectly certain that this scheme will not work in Mysore.

Mr. Bulsael:—Our Association would like to put in a suggestion rather on the same lines as one of the rules of our Association, which is, a minimum acreage of 50 only is eligible for membership. When we met last month to discuss these points we thought we might be able to alter our own rule slightly to meet this need, and thought of bringing the minimum acreage eligible for membership down to 20 acres. That

would give the necessary inducement to many Indian planters to join and bring in some of the smaller European planters also. We would like to mention this as a suggestion.

Mr. Francis:—I speak on behalf of the Kanan Devan Planters' Association. We have no actual objection to this Associate membership scheme, but we have very grave doubts whether it will work with us. What is absolutely essential for our State is that we must have a central organisation to co-ordinate planting politics in the State. We must have a member on the Chitral Council and a member on the Sri Mulam Assembly, and require some organisation to co-ordinate the policy and to finance these members. Under the scheme proposed here we get an indefinite amount of Associate subscription and have to rely on an indefinite grant to pay for the expenses of delegates at Travandrum, which does not amount to very much in the way of an attractive proposition. As years go on, I am quite certain that we shall not be able to rely fully on Madras. In Travandrum we shall need a body of men to represent us there, and I do not see in this scheme any adequate arrangement to support these people. What I think really is required is some organisation on the lines of the proposed Travancore Proprietors' Association. I think that is absolutely essential. In such an Association the subscription would be cut down to an absolute minimum per acre, and the Indian small owner and the European owner would meet on a fair acreage basis. I do not think there is any other way to solve the problem as far as Travancore is concerned. I do not want anybody here to gain the impression that we are antagonistic to the U.P.A.S.I., or that there is a danger in our having a separate organisation. The membership of the Travancore Organisation would be mostly composed of members that belong to the U.P.A.S.I., and I see no danger or any antagonistic policy being put forward by us. All we require of the U.P.A.S.I. is for the concerns that are in Travancore to be absolved of half the political cess so that we can put that money towards the expenses of this Organisation in Travancore. I am quite certain that without such a scheme we shall never get the full co-operation of the Travancore Government, and I have every reason to believe that such a scheme as I have suggested will have the full support of the Dewan of Travancore and the Government.

The Chairman:—May I hear the views of Central Travancore.

Mr. Inman:—We should like to associate ourselves with what Mr. Francis has said.

Mr. Reade:—We have no Indian estates in the vicinity of Anamalais, so there will not be any Indian owners to join our Association as Associate members.

Mr. Nicolls:—We have not had an opportunity of putting this before our Association, but I think there is no question about the scheme. If we could get Indian associate members in large numbers, it would be of the greatest value to the U.P.A.S.I. for obvious reasons. The question of voting is a difficult one, and I do agree with Mr. Greig when he said that we might easily be swamped out. I think that they may attend our meetings but that they must not be allowed to vote.

Mr. Davis:—I agree with Mr. Nicolls.

Mr. Murphy:—I do not think that Indian planters in Travancore would be willing to join our Association. If they were to join, they would want full voting rights.

Mr. Howe:—Our Association are definitely in favour of this proposal at least the principle of it whereby planting interests, both European and Indian, could co-operate in the crystallisation of an opinion, for instance, in the preparation of statistics in connection with Export Restriction Scheme, etc. I think it will be of the greatest help if Europeans and Indians were members of one common Association, but my Association feels that it is a very big scheme, so a considerable amount of thought and preparation is necessary before anything definite could possibly be arrived at. In fact, so far as my Association is concerned, it is a question of considering the various opinions put forward so that the reasons for and against could be sifted out, and then we would be in a position to offer suggestions in common with other Associations to whom the matter has been referred.

Mr. R. M. Greig:—My Association agrees with the scheme and joins the Nilgiri Planters' Association in the suggestion that the Articles of Association might be revised. I personally do not quite understand the difficulties for voting, which can be arranged on an acreage basis.

Mr. Walmesley:—I am not in favour of the proposal and must endorse Mr. Murphy's remarks.

Mr. Gillespie:—My Association wishes to support the Associate membership scheme, which, I think, is probably more applicable to Travancore than perhaps other Planters' Associations. There are 17 or 18 Indian planters who have already made a request to join the South Travancore Association on the terms of Mr. James' proposal, but the proposal should be modified in some way to meet the individual requirements of each Association in Travancore.

Mr. James:—I think it is important to keep two separate things distinct. The first problem is the question of the alteration of the constitution of District Associations so as to admit of Indian members. We have heard very different views from different districts, which only serve to illustrate the fact that district conditions are entirely different. But it is within the power of District Associations to make such modification of their constitution as they deem fit, provided that it is not repugnant to the general constitution of the U.P.A.S.I. I think that it would be a good plan to go ahead with some such modifications as are suggested here, subject of course to alterations to suit local conditions.

As far as the Travancore position is concerned, that is a somewhat different matter. It is not simply a question of admitting Indians to membership but it is a question of the whole political representation of planters in Travancore. I should like to put on record that I see no objection to a proposal to organise an Association of Travancore planters which would endeavour to include in its membership both Indians and Europeans. I would suggest that the subscription for an Association of this kind should be as low as possible. The object of this Association should be to represent and further the interests of Travancore planters in Travancore. It ought, I think, to confine itself primarily to Travancore matters and to representations to Travancore Government. I have already suggested that the organisation of this Association might be based somewhat on the lines of the Burma Planters' Association of which I obtained some knowledge in Simla when the Chairman of that Association was there. It consists of members who pay $\frac{1}{4}$ anna an acre. A Committee of six is elected and that Committee has power to co-opt

two others. They have the simplest possible rules. Their experience is that no Burman joins unless something special turns up (like getting a quota for his rubber estate for nothing). Then he pays $\frac{1}{4}$ anna and becomes a member. As soon as he gets his quota he will probably cease to be a member! Time alone will show how an Association on the lines suggested will work. If it does prove successful, then I think it can perform useful functions in the State of Travancore. I have made further suggestion that the registration of the new Association should be contingent upon members actually joining and paying the subscription. I believe they did so in Burma. To begin with, you could start with an initial membership of a definite minimum number of members of whom 50% should be Indians,—in other words, an Association representing half Indians and half Europeans. There is no point in starting a new Association unless the Indian planter is really going to come in and pull his weight.

One point was mentioned by Mr. Francis,—and that is, the desire of the Planters' Associations in Travancore that their present payment to the political department should be reduced half so that they could devote half of it to the interests in Travancore. Well, I sympathise with that suggestion, but I would point out that the U.P.A.S.I. as a whole is committed to an All-Indian Scheme towards which they are now to pay annually Rs. 13,500; in other words, for a sum of about £1,000 a year, which is a very small sum if you consider the total capital invested and interests represented in the U.P.A.S.I., they are part of a political defence scheme which gives them their own man in the Assembly at the Headquarters of the Government of India, and the call upon the service of a man in the Madras Office, who can be of assistance not only to British Indian planters but also to planters in Travancore. Any suggestion that that general commitment should be reduced by the U.P.A.S.I., would be received with apprehension by the other participating bodies and would not be advisable. I hope Travancore will consider this very carefully and do nothing to imperil or touch the finances of the general scheme. That scheme is now nearing completion, and I am convinced that the participation of the Planters' Association as a whole in it will be one of the most important factors in the coming days, and should not be interfered with by any other contingency.

SPORTS CLUB.

The Chairman:—Has any delegate any question to ask in regard to the Sports Club?

Mr. Reade:—I have been asked by certain members of my Association to bring up the subject of the possibility of obtaining a Sports Ground in Coimbatore, and would like to suggest that the Executive Committee elect a Sub-Committee to go into the whole matter and report back to them on the feasibility or otherwise of the proposal.

The Chairman:—I think your suggestion is an excellent one, Mr. Reade. The Executive Committee will go into the question and appoint a Sub-Committee to take up this question.

Mr. Reade:—Thank you very much.

Mr. Bulseel:—Some delegates have spoken to me about Sports, and I wonder if next year we could revive some of the Inter-District competitions, as some have mentioned to me that they are willing to play.

We should at any rate be very pleased if the Executive Committee could give it their consideration.

The Chairman:—That question will be considered by the Sub-Committee that the Executive Committee will appoint.

SUBSCRIPTIONS.

The Chairman:—The South Travancore Association have a resolution to move in regard to Rubber Subscription.

Mr. Gillespie:—Our resolution reads as follows:—

"That in view of the fact that the Rubber Reserve Fund will be insufficient to meet subscriptions due from the rubber area for the whole of this year, the Executive Committee be authorised to levy a cash subscription of One Anna per acre during the last quarter should they consider that this will be necessary."

Mr. Walmesley:—I second the resolution.

The Chairman:—As no one else has anything to say, I now put the resolution to the vote.

The resolution was carried.

The Chairman:—Mr. Nicolls, you have tabled a resolution, which reads as follows:—

"That the general subscription to the U.P.A.S.I. for Tea and Coffee be increased by 2½ annas per acre in order to provide more funds for the Labour Department. This increase is to be used for extra travelling allowances with the object of securing greater efficiency."

Mr. Nicolls:—I would like to withdraw it with the permission of the meeting.

Permission to withdraw the resolution was granted.

The meeting adjourned at 5 p.m.

Third Day, Friday, 14th September, 1934.

The Meeting re-assembled at 10 a.m.

INDIAN TEA CESS COMMITTEE.

The Chairman:—On your behalf I should like to welcome this morning to our meeting Mr. Miles, the Commissioner of the Tea Cess Committee in India. I will ask Mr. Miles to speak on the activities of the Tea Cess Committee during the past year.

Mr. Miles:—During the year which I am about to review, there have been a number of important changes in Tea Cess work in South India. The first, and in my opinion, the most important, was one of policy. The Executive Committee decided to discontinue its selling activities, and concentrate all its resources on propaganda, which they felt was more likely to yield immediate results to the industry. Therefore, in so far as South India was concerned, from the month of August no further purchases of standard tea for sale purposes were made, and our efforts were concentrated upon disposing of the stocks which were then in hand, and in assisting dealers, who had previously purchased from us, to redistribute their stock. Tea propaganda work was continued with full vigour, and the tea used for free distribution, and for sale in piec packets, was purchased direct from estates until the end of December, 1933.

It was then decided that even these purchases should cease, as I considered that better propaganda results would be achieved if this tea were purchased from the local bazaar in which the propaganda work was being carried on. In my opinion, this course not only assists distribution, but tends to create goodwill between the distributors and our staff on the one hand, and the dealer on the other hand.

When I inspected this Division in January of this year, I was impressed with the immense area within which our staff were working. I considered that work in a more concentrated area would be far more likely to achieve quick results, and consequently work was closed down in Coorg and Chittoor, and limited to the larger towns in Mysore, and to the districts of Coimbatore, Trichinopoly, Tanjore, North and South Arcot, and Chingleput. After seeing work in a number of these districts, I personally formed the opinion that the tea-drinking habit was, at any rate, sufficiently well established to allow of our seeking more backward areas. After consultation with your Advisory Sub-Committee on Tea Cess matters, it was decided that work should be concentrated in the following five towns:—

Trichinopoly
Tanjore
Kumbakonam
Negapatam and
Mayavaram.

Each of these towns is the headquarters of a demonstration party, which has at its disposal a motor lorry, with the help of which the party is able to do regular and concentrated work within a radius of 20 miles. Operations will be carried out in small towns, villages and shandies within this radius. Their work is being systematically arranged so as to provide a gradual expansion from the centre, linking up as they

go the smaller dealer with his natural source of supply, namely, the larger dealer in the main town.

It was also decided to increase the amount of liquid tea which our staff distributed. Previously, what was known as a Five-Cup Demonstration resulted in some 120 cups of tea being distributed in the course of the day. It was not considered that this was enough, and instructions were issued to the staff that the distribution of liquid tea was to be on a much more liberal basis. The result of this is reflected in the following figures:—

Cups of tea distributed during the 4 months, July to October, during the regime of the Five-Cup Demonstration	48,650.
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Cups distributed during the 8 months, November to June, when distribution was made on a more liberal scale	736,262.
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I feel sure that this change in policy has greatly enhanced the value of our work. During the year, therefore, 784,912 free cups of tea were given away by the South India Division, and during the course of this free distribution, 354,405 pice packets were sold. The percentage of pice packets sold to the number of free cups given away is most encouraging, and demonstrates that the work being done by our staff in South India is achieving success.

During the whole of the period under review, the work in South India has had as its objective the introduction of tea into the household for domestic use; thus work has been conducted almost entirely in the residential quarters with a view to the free tea being given to the women-folk. Very large numbers of women do attend our tables, but our staff notice some reticence in connection with the actual attendance of women at the tables. It is found, however, that in these cases almost invariably the children of the household attend the tables, and, furthermore, that immediately they receive the free tea, they take it from the tables straight to their homes.

In addition to the work I have just described, we have been carrying out experimental work which has as its object the introduction of tea into the higher class Indian households. This work was inaugurated whilst our headquarters were located in Bangalore, and has been up to now carried out in that city. This work has embraced the visiting of private homes with the object of demonstrating to the ladies therein the proper method of how to prepare and serve tea. Lectures and demonstrations on similar lines have been given at Girls' Schools, and Girl Guide Rallies, and also at social gatherings. This work has unquestionably been successful in that we have proved that tea has been introduced into some homes where hitherto it was practically unknown. It has most certainly created interest as is proved from the fact that our parties have actually received requests to attend "At Homes" and "Social Gatherings" for the purpose of showing the correct method of preparing and serving tea. This work is, of course, experimental.

Similar work on somewhat different lines is being undertaken in North India, and I anticipate that when we have decided the best method of carrying out this type of work, it would be found necessary very largely to increase it.

The fullest use has been made of Exhibitions where it was considered that good work could be done. The following Exhibitions were attended:—

July 1933.—Tinnevely "All-India Swadeshi" Exhibition—Model Tea House & Demonstration Tea Stall.

August 1933.—"All-India" Kistna Pushkaram Fair & Swadeshi Exhibition, Bezwada—Model Tea House & Demonstration Tea Stall.

September 1933.—"All-India Khadi & Swadeshi" Exhibition, Salem—Model Tea House & Demonstration Tea Stall.

October 1933.—Mysore "Dasara" Exhibition—Demonstration Tea Stall.

At 3 of these Exhibitions the Model Tea House was a feature. The object of this Tea House was to demonstrate how a liquid tea shop should be maintained, and what a profitable undertaking it could be even when selling a 5-oz. cup of tea at the low price of half-an-anna. These three Tea Houses attracted a large number of people, and altogether 5,880 cups of tea were sold. Four gold medal certificates were awarded to the Indian Tea Cess Committee for the best method of advertising tea.

The work of combating the selling of bad and imitation tea has had attention throughout the year. The 17 towns to which the Prevention of Adulteration Act has been extended were, during November and December, visited by a Tea Cess Inspector. Very little imitation or adulterated tea was discovered, but a good deal of rubbishy tea was found, particularly in Calicut. In March last, a shipment of tea waste was despatched from Calcutta to Tellicherry, and through the instrumentality of the Tea Cess Committee, the Health Officer, Tellicherry, took a sample of this shipment which was found to have been adulterated. The Municipal authorities of that city immediately instituted proceedings which are still in progress. Recent investigations show that large quantities of black gram husk are being exported from South India to other parts of the country, principally the Bombay Presidency. A special investigation was carried out in this connection, and as a result thereof, I recently submitted certain suggestions to the Executive Committee, which are still under consideration.

The Chairman:—Gentlemen, Mr. Miles informs me that he would welcome any questions from delegates. Will delegates ask any questions?

Mr. Inman:—My Association have asked me to enquire from Mr. Miles the possibilities of starting a Tea Auction Room in South India for selling tea.

Mr. Miles:—That is scarcely a question which I can answer. That does not concern me. It is more a matter for the Planters' Association to decide. From my own point of view, it is only one way of helping us to compile statistics which will, of course, be very very advantageous. It would assist me to arrive at a more accurate way of estimating the quantity of tea sold for consumption in South India.

Mr. Millar:—Would it be possible to prohibit the manufacture of adulterated tea, that is, tea adulterated with black gram husk?

Mr. Miles:—That has been considered, but the difficulty is that it is not injurious to health, and to a certain extent, it is used for cattle feeding too. The difficulty is apparently that, unless an article is

actually injurious to health, the Government will not restrict trade in it. Black gram husk, which is manufactured down here, is actually exported as black gram husk and not as tea. It goes to Bombay and is distributed from there. It is very difficult to get proper punishments inflicted, even when cases of actual adulteration are detected and proved.

Mr. Murphy:—I was in Bombay recently and I made enquiries about black gram husk which is sold in very large quantities as "imitation tea." If it is sold under the name of "tea," is it not committing a fraud and injurious to health?

Mr. Miles:—Such persons can be prosecuted, but convictions are very difficult to obtain. I shall touch on this question in a short note which I shall read in a few moments. We have already investigated this matter in Bombay. The main thing is that the Bombay Food Adulteration Act is so loose, and the Magistracy so reluctant to convict the offenders, that it is useless trying to run prosecutions. That is why I have put up suggestions to my Executive Committee to move the Government of Bombay to amend their Act so as to make prosecutions more easy. What we find now is the offender is fined Rs. 15 or Rs. 20, but he does not mind it in the least because he makes such an excellent profit.

Mr. Madden:—My Association takes a great deal of interest in Tea Cess matters. In March last, the delegates of my Association came here and suggested that more use should be made of the vernacular press for advertising purposes. May we ask Mr. Miles to let us know what is being done? Secondly, referring to the question of propaganda in better class Indian houses, may we ask exactly what is being done to overcome the "caste" difficulties?

Mr. Miles:—The first part of your question will be answered in a short note which I shall read in a few minutes. In regard to the work in better class households, we find really good scope, and have not met with much "caste" prejudice as yet. This work is being conducted by a lady in Bangalore who, originally was a missionary, and now runs a school of her own. I think she has conducted her work very well. Firstly, she began her work in the homes of the children who come to her school, and through them she has introduced the tea-drinking habit in many households. Many of them are really people of considerable substance in Mysore. I think it is good work, but it has to be studied very carefully because to do it in a large scale would be very expensive.

Mr. Milner:—I am sure we all agree that the report we have just heard from Mr. Miles shows definite progress. Tea Cess work and sales of tea in India are both hampered by the same thing, that is, lack of money at the disposal of the Indian Cess Committee. Lack of it prevents propaganda being undertaken over a much larger area; lack of money on the part of the consumer prevents him from purchasing more tea; so it follows that the price of tea for sale in this country must be kept at a reasonably low price, both for dry and liquid tea. As regards the work of the Tea Cess Committee, I am certainly confident that under the capable direction of Mr. Miles great progress will be made, but it necessarily depends upon the funds available, and I hope that the proposal to increase the Tea Cess to a maximum of Re. 1 will materialise in the near future.

Mr. Robertson:—Can you, Mr. Miles, give us some information on one point? Do the Tea Cess Committee, if they are approached by small retail dealers as to where tea can be obtained, give specific information by giving any special supplier's name, or do they merely give information in a general way?

Mr. Miles:—The information given depends much upon the type of dealer who calls for it. If he is a man of importance, one likely to buy in reasonable quantities and to be of any use to a big distributor, he is given a list of the distributors which we have. Of course, no preference is shown. These distributors on the list have all their teas tested in Calcutta and they have given us a guarantee to maintain quality. When it comes to a smaller dealer, a man selling only 10 or 15 pounds a month, it is no use putting him in touch with the big distributors. What I consider to be the most important part of our men's work is to endeavour to get the smaller retailer in touch with a wholesale dealer in the closest headquarter town, if he is not already in touch with him. There have been occasions when a wholesale dealer in a headquarters town is so much interested in this work that he has asked to go out with our party. One of the greatest difficulties in business in India is to get the average Indian wholesale dealer to go out and look for business. I think we are really doing good work in this direction, not only here but in the North as well. The co-operation of dealers with our propaganda parties is being encouraged as much as we possibly can.

Mr. Robertson:—There is just one other point I would like to recommend, that is, the publication of a small booklet advertising Tea. I suggest that the booklet might consist of a short description of Tea growing and Tea manufacture, and that as many advertisements appear in the booklet as possible. I suggest that the booklet should be printed in English, Tamil, Malayalam and Hindustani and, as far as possible, the number of advertisements should be sufficient to pay for the production of the booklet, and that a quantity of these booklets should be available for distribution by the Tea Cess Demonstrators. I think that could be arranged.

Mr. Miles:—Curiously enough, that very subject was under discussion yesterday with your Advisory Committee, and it was under consideration in Calcutta just a few days before I left. The preparation of some sort of booklet on these lines and our plans for bringing it out are going ahead and we shall have it published in a short time. Whether we shall be allowed advertisements is a matter for my Executive Committee to decide, but if we are not, it is going to be an expensive matter. It is not a matter of printing a few thousand, but many hundreds of thousands. However, this matter is receiving careful consideration.

Mr. Madden:—May I ask, if Mr. Miles can give us any idea of the figures of tea sold for internal consumption in South India as against crop production?

Mr. Miles:—The task of arriving at such a figure has never been easy. I have been trying to do it for some time, and your Advisory Committee have been helping me too. Taking the figure of your production for 1933-34, deducting foreign exports and coastal exports and adding imports from North India by rail and by sea, I assume that

during 1933-34 a quantity of 12.3 million pounds was left for consumption in South India. I do not think this figure is strictly correct, because there must have been some exports by rail and we have not got those figures yet. We are actually working now on a scheme of arriving at rail exports from South India, but I think you can take the above figure as fairly accurate.

Mr. Fowke:—Can you tell me whether Tea Cess will be increased to Re. 1 per 100 lbs?

Mr. Miles:—I am afraid I am not in a position to tell you that. All I know is that a proposal has gone to the Government of India. It does not come under my Department; it is for the General Committee. I do not think there is any definite information yet.

Mr. Fowke:—Could Mr. James give us any information about it?

Mr. James:—The Chairman of the Indian Tea Association, a representative of Assam in the Assembly and I interviewed the Government Department concerned on the proposed increase in cess. The Government said that they were quite prepared to undertake legislation but, before doing so, they wished to be assured that behind the proposal was a thoroughly comprehensive scheme for the extension of propaganda as a result of an increase in the cess. In other words, they would send it back to the industry with the request that they should put up their proposals which, I understand, are fairly comprehensive for an extensive propaganda, particularly in the North, I think in the United Provinces. The Government are not willing to undertake legislation merely on the request that the cess should be increased. They want to have behind that request very definite information as to the proposals of the industry in regard to propaganda throughout India. I think if that is sent up, and I presume it is about to be sent up, I should imagine Government would undertake legislation provided they are satisfied that the increase is desired by the overwhelming majority of producers.

Mr. Balteel:—Mr. Miles mentioned that he had enquiries from small retailers and small wholesalers about getting small quantities of tea. Might I ask Mr. Miles to put them in touch with small proprietary planters? It would be helping them to a great extent because they are also subscribing to the cess.

Mr. Miles:—I think really that suggestion is one more for your own Sub-Committee to decide.

Mr. Reade:—Can Mr. Miles tell us whether any steps are taken to get accurate statistics in regard to the actual consumption of tea throughout the whole of India?

Mr. Miles:—I gave my estimate of the figures of consumption of tea in India in my speech at our half-yearly meeting in Calcutta as roughly 65,000,000 pounds. The figures are arrived at exactly in the same way as I just described regarding your South Indian figures. Taking production, exports and imports and the result is the amount left for consumption in India, plus stocks at the end of the year. The figure arrived at was 65,000,000 lbs., but I think probably it is far greater than that because there is a very large consumption of tea in Assam, which I do not think really is included through official channels. If we get legislative control of production, we shall then be able to get a more accurate

figure of tea sold for internal consumption. In Calcutta we can. There the sales are definitely separate now—export sales and sales for internal consumption. It involves of course great difficulty, as so many people sell tea direct for internal consumption.

Mr. Mills:—I would like to suggest a proposal. I think it is agreed on all hands that accurate figures are absolutely essential from our own point of view. We must base our propaganda work on accurate figures, and I would like to suggest that every producer should co-operate in sending in a quarterly statement giving their total production either direct to the Tea Cess Committee or to the Joint Controller, and if the latter deducts from it the export licenses issued during the period, we would then have a very fair gauge of the amount of tea left in the country for consumption. Then if we can only get from estates a monthly statement giving, by grades, the quantities and the net prices of tea despatched for local sale and its destination, I think it would be going a long way to knowing what is happening to the tea produced in South India. The quantities are necessary so that you can get a true average. At the present moment, in the *Planters' Chronicle*, the average given is not correct. There you have just the highest and the lowest price and the average between the two, which is misleading. If we get a certain degree of accuracy, in the list of figures I have mentioned above, giving quantities and prices, Tea Companies can watch the trend of the market and so be in a position to regulate prices, and quantities for consumption. A comparison of monthly and quarterly returns will give a very fair idea of the accuracy of the figures. Mr. Lloyd was good enough to say that he would be willing to place all the figures in his office at the disposal of the Tea Cess Committee, so that they can compare his figures as well. I would like to suggest that a small Sub-Committee be appointed now consisting of the Commissioner, Mr. Lloyd, the Executive Committee member for Tea and two or three others who, after this meeting is over, will meet and devise a perfectly simple form which can be filled in either by Companies or Estates or by the Agency Houses direct, and sent in to the Tea Cess Committee or to Mr. Lloyd.

The Chairman:—I think Mr. Mills' suggestion is eminently sound, but as far as forming a Sub-Committee at this meeting is concerned, I do not think it can be done without a formal resolution being moved, and under our rules this is not possible because the requisite notice has not been given. I would suggest that the matter be referred to the incoming Executive Committee and that they be asked to form a Sub-Committee immediately. Will this meet your views, Mr. Mills?

Mr. Mills:—If they can meet to-day.

The Chairman:—I do not think there will be any difficulty about that, as we are holding a General Committee Meeting immediately after this meeting, and the new Executive Committee will then be elected.

Mr. Howe:—My Association would like to know if it would be possible for information and figures to be published once a month in the *Planters' Chronicle* giving a brief resumé of the work carried out during the preceding month, together with a few statistics in regard to the amount of tea, both dry and liquid tea, distributed for propaganda purposes, so that we can gain some idea of the actual activities which are going on in this respect, particularly in regard to South India.

Mr. Chairman:—Mr. Miles has already made arrangements for that, and a short resumé will be issued monthly by Mr. Bentley, the Superintendent of Indian Tea Cess Committee in South India.

The Chairman:—Mr. Miles wishes to make a few remarks to you on the general activities of the Indian Tea Cess Committee.

Mr. Miles:—I have been asked by Mr. Mills to give you a general resumé of Tea Cess activities. I welcome the opportunity, and will make my remarks as brief as possible. Before touching on the actual work we are doing, I think you will probably be interested to hear something about the head office organization. This has its headquarters in Calcutta, and consists of one Commissioner, with two European assistants and 12 clerks, and is divided into two main sections—the Stores department, and the General department. The Stores department is responsible for the purchasing of all equipment, advertising material, and the thousand and one replacements which constantly become necessary, and for the despatch of them to the various places in India where they are required. The General department is responsible for the accounts, and for all work in connection with the large volume of reports which come in from upcountry stations. When I tell you that our total upcountry staff exceeds 400, and that this number is divided into approximately 70 groups, each reporting and accounting separately, you will appreciate that the task of checking their accounts, of keeping them supplied with funds, and of receiving, reading, and recording their many reports, is no light one. In addition to these two main departments, there has recently been added a Publicity department presided over by a Publicity Officer, who recently took up this appointment, and about whose work I shall have something to say later on.

Another duty devolving upon the head office organisation is the compilation of statistics, such as the despatches of tea by rail and by sea from various focal points to different parts of the country, and estimating the amount of tea left in India for internal consumption. It has been found that the only reliable method of arriving at this figure is to base one's calculation on the figures of production. These figures, however, are never strictly accurate owing to two main factors; firstly, the absence of returns from a large number of gardens and, secondly, the difficulty experienced in forming an accurate estimate of the land frontier exports. We are always on the lookout for more accurate means of making our estimates, but our difficulties are great. Possibly if Legislative control is extended to production in the near future, we may be able to present figures which will be more accurate.

This, I think, should suffice to give you an idea of how Tea Cess activities are controlled at headquarters.

Tea Cess work, generally speaking, falls into two broad categories, namely,

- (1) Practical and permanent work, such as the erection and maintenance of tea stalls at railway stations, factories, steamer ghats, mills and other centres, industrial or otherwise, where large numbers of people congregate or pass through.
- (2) Propaganda work amongst the masses which has, as its object, the introduction of tea as a beverage to those who do not know it.

As regards the first category, this constituted a most prominent feature of Tea Cess activities for some years, but in about 1931 was largely curtailed as it was then felt that these permanent organizations were sufficiently well established to allow of them carrying on without help. We continue, however, to supervise them, and at the same time are always on the lookout for further focal points at which permanent tea stalls can be established. I instance the rapidly growing sugar industry in North India, where I have a staff employed in opening tea stalls at the numerous new sugar factories which have recently come into existence.

I shall now turn to the second category, that is the propaganda work which we are doing amongst the masses. You are aware of the methods we employ which are, briefly, the giving away of well-made tea free, coupled, wherever possible, with the sale of a small quantity of dry tea at the smallest possible cost to the potential consumer,—one pice.

During the past 12 months, our object has been to concentrate this work in certain definite areas from which we estimate results can be obtained. This concentration is now centred in three main districts, the United Provinces, Bengal and South India. The broad outline of this scheme of concentration is that demonstration parties are permanently posted at all the main centres of each area. Some of these parties are provided with motor lorries and some, unfortunately, for financial reasons are not. The parties with motor lorries can, at a minimum of expense, work within a radius of 20 miles of their headquarters town, whereas those without motor transport can only work approximately within a radius of about 5 miles of their headquarters town. These parties are posted so as to ensure that the extreme boundary of the area of each party joins up, or nearly so, with the boundary of the next party, thus providing almost unbroken "lines of communication" throughout the Province. The duties of these parties are systematically to work from their headquarters within their given radius, and in addition to the ordinary propaganda work which they do, one of their most important duties is to ensure that connections are made and maintained between the large dealers in their headquarters centre and the dealers in the smaller places where their work is done, so as to ensure supplies being available to cater for the demand which their work creates.

The foregoing briefly describes the methods of work in the United Provinces and South India. In East Bengal, the third sphere of our main activities, the work of necessity differs somewhat from that of other Provinces, although similar in principle. In East Bengal where the scarcity of roads does not allow of the use of motor transport, and where railway communications are meagre, we are forced to use the vast rivers and waterways which flow through this densely populated area. Here, therefore, in place of motor lorries as a means of transport, we have houseboats. Our men live on these houseboats, and work on exactly the same lines as the men in other Provinces.

In March last, Mr. Milligan outlined what has now become to be known as the "Four Years' Plan", the idea of which is to continue to work with the same or even added intensity in the Provinces within which we are at present located, and systematically to take up work in additional Provinces year by year; thus if the cess is increased, we shall, during the latter part of this season, train up a staff to work an additional Province during next season, and then during that season train up a staff to work two additional Provinces in the following two seasons.

Therefore, if Mr. Millgan's plans fructify, we shall during the seasons 1936-37 and 1937-38 be working in no less than five Provinces on similar lines to those which I have already described.

The question of general publicity in the vernacular Press has not escaped our attention, and as I have already told you, a fully qualified Publicity Officer took up his duties with the Committee on 1st August. He is at the present moment engaged in making a general survey of the field work we are doing, so as to make himself conversant with the general situation of the Tea Industry and its propaganda efforts. I attach considerable importance to this branch of our work, which it is hoped will be greatly expanded during the next 12 months. I cannot say on what lines, as the problem is a big one, and one which requires the most careful thought which, up to date, our Publicity Officer has not had the opportunity of devoting to it. A systematic programme will be arranged at the earliest possible moment.

In carrying out our normal propaganda duties, more especially in the larger centres, we come into contact with the ever growing trade in bad and imitation tea. We have in the past spent a great deal of money in an endeavour to combat this evil, but it has been found that the results obtained have not been commensurate with the expenditure involved. Convictions have been made as a result of our activities, but, generally speaking, the punishments inflicted on the offenders are so insignificant as to have no real effect as a deterrent. It seems to me that unless and until the laws in this connection can be amended, our only hope of combating this evil is to educate the masses so to appreciate good tea that they will refuse to accept the rubbish which so often is thrust upon them.

The Chairman:—Gentlemen, on your behalf I should like to thank Mr. Miles for coming here to-day and giving us his most interesting addresses. We must also thank him for his great patience in answering the numerous questions put to him, and I think you will agree with me in saying that we are all deeply grateful to him. (*Applause.*)

Mr. Miles:—I thank you, Mr. Chairman, for your kind words and you, Gentlemen, for the kind reception you have given me. I should like to take this opportunity of expressing my thanks to your Advisory Sub-Committee for the excellent advice and help they have given me since I took over my appointment nine months ago. They have always been willing to meet me at convenient spots, very often at great inconvenience to themselves. I am very grateful indeed for the help they have given me.

TEA CROP RESTRICTION BILL.

The Chairman:—We have here to-day Mr. Wallace, the Chairman of the Licensing Committee, and I would ask him to address you on the question of this Bill.

Mr. Wallace:—As a member of the Tea Licensing Committee and of the Committee formed for working the Voluntary Crop Restriction Scheme, the Chairman has asked me to say something about the restriction of crop. I am afraid I can tell you very little more about it than you already know yourselves. The present voluntary scheme is working as well as any voluntary scheme can be expected to work, and I can only express regret that so many owners in South India refused to support the scheme when it was first put before them. As regards the proposed

crop restriction under legislation, it is unlikely that any legislation can be passed at any rate till next spring, but efforts are now being made to draft a Bill and the relative rules. The Bill and Rules will be circulated to the District Associations as soon as it is possible to do so for their opinion. If any member here has any questions to ask regarding either of the schemes I will, with the help of the Joint Controller, give you any information you require.

Mr. Bulseel:—Has the Bill really been drafted?

The Chairman:—Yes, a draft has been made but I understand it has been returned again to the Indian Tea Licensing Committee for further re-drafting.

Mr. Wallace:—I think we can take it that everyone is fully satisfied.

The Chairman:—I think, Mr. Wallace, your suggestion that the draft Bill and the Rules will be circulated to the District Associations cuts the ground away from any one to talk about it now.

RESTORATION OF CUTS IN SALARIES OF U.P.A.S.I. STAFF.

The Chairman:—Before asking the Kanan Devan Planters' Association to move their resolution, I should like to make one or two remarks so that you will see the actual financial position in which we are now placed.

Since the passing of the Budget by the General Committee last March, the acreage subscribing to the U.P.A.S.I. has increased, Tea by 3,100 acres, Coffee by over 600 acres, Rubber by 15,100 acres, (*Applause*) and Minor Products by 340 acres. Similarly the area subscribing to the Labour Department has increased by nearly 2,400 acres. (*Applause*.) Pending the examination of the expenditure for the half year which ends on the 30th instant, it would appear that the Head Office may have a credit balance of Rs. 4,000 instead of only Rs. 1,700 as in the draft Budget, and the Labour Department an excess of income over expenditure, including the balance brought forward, of over Rs. 12,000 as against about Rs. 3,000 anticipated in the original Budget. The Tea Scientific Department is expected to have an excess of income over expenditure of Rs. 500 as against a short fall of Rs. 714 in the Budget. The excess of expenditure over income in the Coffee Scientific Department is likely to be Rs. 135 less than anticipated. When the Accounts for the half year are completed, an exact statement of the position will be drawn up and circulated to all members, and this statement will include any alterations in the Budget that are made at this meeting. I will now ask the Kanan Devan Planters' Association to move their resolution.

Mr. Francis:—On behalf of the Kanan Devan Planters' Association I move the following resolution:—

"Resolved that the 10 per cent. cut in the U.P.A.S.I. staff salaries be restored retrospectively from 1st April 1934."

This is a matter which was discussed fully at the General Committee meeting last March, and the sense of that meeting was almost unanimously in favour of restoring the cuts in accordance with this resolution. It was felt, however, that the matter should be put before the General Meeting for decision. It is hardly necessary for me to dwell on the fairness of the proposal. Nearly all of us in this room suffered cuts of

varying severity during the worst of the slump, and nearly all of us have had these cuts restored. It is only right and proper, therefore, that the cuts in the salaries of the servants of this Organisation should now be restored.

Mr. Garrett:—I have great pleasure in seconding the resolution. You will doubtless remember that at the General Committee Meeting in March, Mysore and Coorg were the chief opponents of this resolution. We opposed it at the time (as we do oppose always on general principle) chiefly because we had not had time to discuss it in our districts in all its bearings, that is, whether it involved any extra expenditure, etc. We went back and discussed things in the light of the remarks then made, and I am now glad to be able to say that we are agreeable to the proposal. I should like to take this opportunity of thanking the movers of this resolution, the Kanan Devan Planters' Association, and their seconders, the Anamallais, for the courtesy which they displayed in agreeing to postpone this resolution at that time, in spite of the fact that it could have been easily rushed through and carried by a majority of votes.

Mr. Nicolls:—Our Association does not intend to oppose this resolution but I should like to say a few words to explain our attitude. As Mr. Garrett remarked, the Mysore and Coorg Associations were the only Associations that opposed this resolution when it was first brought up, and it is easy of course for people like Kanan Devans to bring up a resolution of this kind, because they are not suffering in the same way as the coffee planters in Coorg. Many coffee planters there are still undergoing cuts in their salaries and complete absence of commission, but really our point is this. We feel that the Labour Department, under the present system of retrenchment, is not being given a fair chance to show greater efficiency. It seems to us that it is rather absurd to restore the cut in the salaries of the Superintendents and the Agents when there is no scope for getting any better results. That is all I wish to say. I wanted to explain our position, but we do not intend to oppose the resolution.

The Chairman:—Before putting the resolution to the meeting does any delegate wish to speak on it?

As no one has anything to say, I now put the resolution to the meeting, proposed by Mr. Francis and seconded by Mr. Garrett.

The resolution was carried.

The Secretary:—Mr. Chairman and Gentlemen,—On behalf of the Staff of the U.P.A.S.I., I have to thank you very much indeed for passing this resolution. (*Applause.*)

BUDGET 1934-35.

The Chairman:—I have a formal resolution to propose from the Chair:—

"That the budget for 1934-35, as passed by the General Committee at their meeting held on the 26th March 1934 and as amended by the resolutions passed at this meeting, be adopted."

The resolution was carried.

U. P. A. S. I. RULES.

The Chairman:—You will remember at your General Committee Meeting, three days ago, that the Central Travancore Planters' Association put up a resolution, which was passed, in regard to the rendering of the Accounts one month prior to the Annual General Meeting. The resolution before you is this:—

"The accounts be placed in the hands of members at least one month before the first day of the Annual General Meeting."

The resolution was confirmed.

ELECTION OF AUDITORS.

The Chairman:—I have the following resolution to move from the Chair:—

"That the present auditors, Messrs. Fraser and Ross, be elected auditors for the current year on the remuneration agreed upon."

The resolution was carried.

ELECTION OF CHAIRMAN.

The Secretary passed round the ballot papers and the votes were then counted.

Mr. R. Fowke:—I have great pleasure in announcing that Mr. Walmsley has been unanimously elected Chairman for the ensuing year. (*Loud Applause.*)

Mr. Walmsley:—Mr. Fowke and Gentlemen, I must thank you very deeply indeed for the very great honour you have done me. I only feel that I little justify the trust you have put in me in doing full justice to the task of a Chairman. I feel particularly grateful because I think that I and the other members of the Licensing Committee can accept this as a vote of confidence. (*Hear, hear.*) It is the first expression of approval and encouragement which I have met with. There is one personal remark I wish to make. When I arrived here the other day I had no intention whatever of standing for election. I definitely refused to do so; but certain circumstances arose that practically forced my hands. Another gentleman had been proposed and was willing to stand, and I am certain that if he had stood he would have been unanimously elected, but he withdrew his name. I take it that this is an act of courtesy which one could hardly expect, and which I have not met with for many years.

Mr. Wallace:—Gentlemen, before this meeting is closed, I would like to propose a very hearty vote of thanks to our retiring Chairman. Mr. Fowke has now been in the Chair for two consecutive years, and I think all the members of the Executive Committee fully realise what a tremendous amount of work a Chairman of the U.P.A.S.I. has to do. The past two years have been, owing to the Tea Export Restriction Bill and the Rubber Control Bill, extremely difficult ones, and I congratulate Mr. Fowke on having carried the affairs of the Association successfully through it all. (*Applause.*) As one of the members of the Executive Committee, I can assure you that no Executive Committee could possibly have had a more hardworking Chairman, and one more easy and pleasant to work under. Mr. Fowke is, I understand, going home on leave this

year on a well-earned holiday, and I am sure you will join with me in wishing him and Mrs. Fowke a very pleasant time indeed. I thank you, Sir, on behalf of the Executive Committee and the members of the U.P.A.S.I. (*Applause.*)

Mr. E. W. Fowke:—Gentlemen, I also beg to propose a vote of thanks to our Chairman for having carried us through one of the most critical periods in planting history. He has held the position of Chairman four times, which is a record to be proud of. I do not think that many of us here to-day realise the enormous amount of work this position entails, and the way it has increased since the days when one room in South Parade, Bangalore, with Mr. Fletcher Norton and one typist as the sole staff, was sufficient for our requirements. When we look round on these palatial premises, I think we may indeed feel proud of a Chairman whose untiring efforts have done so much to give us a permanent home in these beautiful surroundings. We must also tender our thanks to Mr. James for the extremely capable way in which he has represented our interests in the various Government Councils of this country, and also for his kind and ready help which has always been at our disposal, when we have asked for it. Our thanks are also due to the Executive Committee and our Secretary, Col. Brock, for all the work they have done on our behalf.

Mr. Eric Hall:—I wish to associate myself with everything that Mr. Wallace has said in regard to our retiring Chairman.

Mr. R. Fowke:—Mr. Wallace, Mr. E. W. Fowke, and Gentlemen, I must thank you Mr. Fowke and Mr. Wallace for the very nice things that you have said about me, and you, Gentlemen, for the way you have received them. The last two years have been indeed very trying ones, and I felt the whole time that if you had got a man with more time to devote to the U.P.A.S.I., possibly the work would have been pushed through with greater efficiency. However, the ship has been piloted home. I anticipated a very difficult meeting, but fortunately the co-operation of everyone of the delegates has enabled me to get it through in a splendid time. I cannot let the opportunity pass without thanking the Executive Committee for the way in which they have assisted me and backed me up from the very first moment I took the Chair. Gentlemen, again I thank you for the way in which you have received all the kind remarks that have been made.

I now declare the meeting closed.

SCIENTIFIC DEPARTMENT
REPORTS
1933-34.

TEA SCIENTIFIC DEPARTMENT

Annual Report—1933-34

Staff.—During the year under review no changes in the staff have occurred. In spite of difficulties arising from the stringent condition of the tea market, it is gratifying to be able to record that the work of the various sections has not been interrupted, and all officers have been able to continue with the various problems confronting them.

Buildings.—No addition in the form of buildings has been made during the year. Representations, however, for an additional Indian subordinate Staff building have been successful, and the work will be commenced during the coming year.

Advisory Work.—During the year 898 letters have been received and 1096 despatched. The usual number of enquiries regarding pests and diseases were evident. It is pleasing to note, with the improvement in market prices, a revival of interest in the manuring of tea which has resulted in an increased number of enquiries being received in this connection.

Publications.—One publication dealing with the Nettle Grub pests of tea has been produced during the year. Interest in the 'Theotannin' publication is maintained, and enquiries from Ceylon concerning it have been received.

Touring.—No extensive touring has been carried out during the year. The Assistant Tea Scientific Officer made visits to a number of estates in Central Travancore in June; while one visit was made by the Tea Scientific Officer to the Entomologist in October. The Entomologist paid three visits during the year to estates in Central Travancore and Mundakayam, two in connection with Helopeltis and one in connection with Nettle Grub. At the request of the Central Travancore Planters' Association an address was delivered by the Entomologist in February 1934 in which the progress of the present investigations on Helopeltis was outlined.

It must be pointed out here that this absence of touring is not due to failure of the Department to comply with requests for such touring. It is appreciated that such touring is essential, but the present regulation states that requests for touring must be made by District Associations before any steps can be taken in this direction.

Pests.—Helopeltis and Nettle Grubs are the pests of major importance and their study is a prominent feature of the investigations carried out by the Entomologist. As originally proposed, Mr. Ananda Rao

proceeded to Central Travancore in June 1933; during the nine months of the current year, he has added considerably to our knowledge of the characteristics of *Helopeltis* with a bearing on control. Stress is laid on the advantages to be derived by a careful consideration of the cultural methods as a means of combating the pest, and in this connection time and type of pruning are of paramount importance.

The progress of the investigation on the probability of biologic control of *Helopeltis* has not been encouraging. Although two indigenous parasites of *Helopeltis* have been isolated, it will be clear that these parasites do not offer any adequate prospect of control, as they would have exerted an effect before. Possibly conditions are not congenial to the parasites' development, and it is necessary to investigate the necessary conditions required to enable them to propagate freely.

Attempts will, it is hoped, be made to introduce the Java parasite, *Euphorus helopeltidis*; the employment of this wasp has been attended by some degree of success in Java. It is first necessary to determine if this wasp is already present in South India, and steps in this direction have already been taken but with negative results.

In the previous Annual Report (1932-33) a note was included regarding the possibility of Nettle grubs becoming a serious pest. This note appears to have appeared in time, as one of the worst attacks of this pest in South India came to notice in October 1933. In order to give more publicity to this pest, the Entomologist was asked to write an article concerning it, the article appearing in the *Planter's Chronicle* on the 27th January 1934. The attention of Planters is again directed to this pest, as it is only by immediate and persistent steps being taken, that this pest can be kept under control.

Diseases:—Pink Disease (*Corticium Salmonicolor*) and the various Root Diseases are still receiving the greatest attention from the Mycologist. The former has been found attacking almost every type of tree to be found on estates. It is important to note that the investigations have shown that high moisture conditions are essential for infection, which again introduces the relative merits of wet weather, as opposed to dry weather, pruning.

A root disease caused by *Armillaria* is reported for the first time in South India. It is well-known in other tea countries and its control does not offer the same difficulty as that of *Rosellinia*. Further work on the control of root diseases generally by means of metallic sulphates indicates that Sulphate of Alumina possesses a high degree of efficiency.

Tea Manufacture:—This aspect of investigation was handed over to the Assistant Tea Scientific Officer. The first necessity was to determine if there was any significant change in any of the ingredients of the leaf during withering, with a view to indicating the meaning of 'Chemical Wither'. Theotannin has received attention, but in spite of many attempts, no satisfactory elucidation has been forthcoming. It may be concluded, therefore, that at least with respect to theotannin, no

change of significance from a quantitative point of view occurs. It must be emphasised, however, that no change quantitatively does not mean necessarily no change at all, as one must consider a change in form which may not be perceptible to the quantitative methods applied.

It has been considered advisable to initiate the collection of data regarding manufacture, with a view to rendering all information possible regarding tea manufacture in a form readily available to Planters. The Assistant Tea Scientific Officer has been asked to compile such a compendium of information.

Chemical Investigations:—These investigations have been continued as usual by the Tea Scientific Officer, whenever time was available. Following upon the most important isolation of Caffeine oxy-theotannate and the very significant characteristics of a tea infusion contributed by this combination, it was considered that the difficulties concerning the significance of theotannin and its contribution to a tea infusion have been mainly overcome. Subsequent work would necessarily entail considerable routine work, which is impossible for an isolated investigator to carry out with any degree of completion without assistance, especially as other problems of importance await solution. It is further of interest to be able to state that theotannin has been obtained with a definite crystalline structure.

As pointed out in the previous Annual Report (1932-33) the most pressing chemical problem now awaiting solution is the one bound up in the nitrogenous components of leaf other than Caffeine. It is easy to determine total nitrogen, deduct Caffeine nitrogen and state the remaining nitrogen to be 'Protein' nitrogen. This has been accepted mainly owing to the difficulty of the problem, and failure on the part of previous workers to attack it from a logical standpoint. As will be shown, although the investigations have not proceeded to completion, there is evidence which indicates that the soluble nitrogen, other than Caffeine nitrogen, cannot be attributed to a protein. The only possible explanation at present is that this nitrogen is present in a form or forms closely allied to Caffeine.

Details of the chemical work are given later, but they have been curtailed owing to their being at present rather technical in character, but any member interested may obtain a copy of the detailed work upon application.

Acknowledgements:—It gives the Staff of this Department pleasure in according acknowledgements to the following:—The Managers of estates visited for hospitality and assistance received; The Travancore Tea Estates Co., through the General Manager for arranging housing and facilities for the Entomologist on Mount Estate; The Director, Imperial Institute of Entomology for identification of insects and the Director, Experimental Station, Java, for information, and specimens of the parasite *Euphorus Helopeltidis*.

Plot Details:—The yield from the Old Tea plot for the year was 237 lbs. made tea per acre. This low yield is ascribed to the general

lack of flushing stimulus resulting from weather conditions, and the exhaustion of the bushes after yielding for 3 years from the previous pruning (this tea is some 50 years from planting and the soil has received no manure). The whole acreage was pruned during December and January.

The monthly yields were as follows:—

OLD TEA

MONTH.		Green leaf lbs.		Made Tea per acre.	
		During the month.	Total.	During the Month.	Total.
April	1933	189	...	15½	...
May	"	537	726	45	60½
June	"	170	896	14	74½
July	"	349	1245	29	103½
August	"	266	1511	22	125½
September	"	270	1781	22½	148
October	"	388	2169	32	180
November	"	408	2577	34	214
December	"	272	2849	23	237
January	1934	Pruned	...	...	237
February	"	"	...	...	237
March	"	"	...	...	237

1926 Plot:—This plot was pruned in April 1933 to 12" and came into regular plucking in September. The yields of each plot are given in the following table:—

1926 CLEARING

Yield per Sub-Plot

Pound M. T. Per Acre

MONTH	Sub Plot No.					
	1	2	3	4	5	6
April 1933	...					
May "	...					
June "	...					
July "	...					
August "	...					
September "	...					
October "	...					
November "	...					
December "	...					
January 1934	...					
February "	...					
March "	...					
Total	...	153	125	146	197	105
Yield 1932/33	...	292	345	199	88	70

A comparison of the yields in the current year with those given in 1932-33 demonstrate a distinct improvement in Sub-plots 3, 4, 5 and 6.

Sub-plots 4, 5 and 6 have developed only slowly from planting and have always shown a distinctly poor appearance; it would, however, appear from the current year's yields that they are commencing to improve. The establishment of supplies is still a difficult matter, and has been attended by no greater success than in former years.

1927 Plot:—This plot was pruned to 10" above ground level in the last week of April 1933, and came into regular plucking in September. To the end of the year it has given a yield of 272½ lbs. per acre. It is looking in very good condition, and after 12 months from pruning has formed an excellent spread.

1928 Plot:—This plot has been in regular plucking throughout the year, and has given a very good yield. Sub-plots 15-18 (low pruned) have averaged 755 lbs. made tea per acre, sub-plots 19 and 21 (high pruned) 770 lbs. made tea per acre and sub-plots 20 and 22 (low pruned) 706 lbs. made tea per acre.

During the year each sub-plot was divided into 5 equal sections, sectional yields being kept separate. The irregularity in yielding capacity of each section, compared with other sections in the same sub-plot, or

with those in the other sub-plots will be evident from the yields given in the following table:—

1928 SUB-PLOTS

Sub-Plot.	Section.	Lbs. M. T. per acre.	Average of Sub-Plot. lbs. M. T. per acre.
15 Low pruned.	1	... 726	... 706
	2	... 709	
	3	... 596	
	4	... 633	
	5	... 864	
16 Low pruned.	1	... 817	... 692
	2	... 522	
	3	... 505	
	4	... 625	
	5	... 958	
17 Low pruned.	1	... 901	... 765
	2	... 702	
	3	... 711	
	4	... 703	
	5	... 800	
18 Low pruned.	1	... 1061	... 856
	2	... 870	
	3	... 770	
	4	... 700	
	5	... 879	
19 High pruned.	1	... 804	... 730
	2	... 655	
20 Low pruned.	1	... 697	... 722
	2	... 747	
21 High pruned	1	... 851	... 810
	2	... 769	
22 Low pruned.	1	... 715	... 690
	2	... 665	

High and Low Pruned Sub-Plots:—In order to arrive at some general conclusions regarding the relative merits of low pruning and high pruning young tea, sub-plots 19 and 21 were pruned to 12" in the centre and 15" to 18" at the sides, and sub-plots 20 and 22 were pruned to 2" followed by one at 6". The yields have been maintained separately over the last three years.

During the current year 1933-34 the yields from these plots were as follows:—Columns 1 and 2, representing the average yields of the plots, columns 3 and 4 the percentage of the annual yield obtained each month.

Comparison—Average yields High pruned vs. Low pruned Sub-plots.

MONTH	1. Monthly crop.		2. % of Annual per month.	
	I	II	I	II
	High pruned (average)	Low pruned (average)	High pruned (average)	Low pruned (average)
April ...	36½	30	4.8	4.5
May ...	106½	63½	13.8	9.0
June ...	22½	20	2.9	2.8
July ...	93½	79	12.4	11.1
August ...	51	58	6.6	8.2
September ...	75	85	9.7	12.1
October ...	94½	89	12.3	12.6
November ...	79½	71	10.3	10.0
December ...	81	79	10.5	11.2
January ...	62½	74½	8.1	10.6
February ...	40½	37	5.3	5.2
March ...	25	20	3.3	2.9
	770	706		

From the foregoing it would appear that there is an advantage in favour of the high pruned plots. Expressing this advantage as a percentage of the average yield of the low pruned plots, the figure of 9.2 per cent. is obtained. It will, however, be noted that this 9.2 per cent advantage, or 64 lbs. of made tea per acre is almost entirely made up during the months of May and July, the other months showing the low pruned plots to possess an almost equivalent yielding capacity to the high pruned plots. The explanation of the deviations in May and July is obscure.

It is further of interest to note that the difference between the high and low-pruned sub-plots is decreasing with each successive year. This is demonstrated from the following annual yields per acre obtained:—

	1931/32.	1932/33.	1933/34.
High pruned (average) ...	183	636	770
Low pruned (average) ...	58	344	706

It is also to be noted that the average yield of sub-plots 15-18 was 755 pounds made tea per acre, and if it is just to include them in the comparison, this shows a difference of only 15 lbs. per acre compared to the high pruned sub-plots.

Admitting then the increased crop due to the high pruning of young tea, what other aspects of the question must be introduced? First of all, the frames of the high pruned bushes leave much to be desired, the branches on which pruning is to be done are irregularly spaced and as a result there will undoubtedly be considerable difficulty experienced at the next prune, not only on account of this irregularity but on account of the thickness of the wood. A large percentage of the bushes will have to be pruned on this exceptionally thick wood, which means recovery will be slow and the possibility of fungoid infection augmented.

The present feeling concerning high pruning at medium and low elevations is that it produces quick yields but at the same time undoubtedly stores up trouble for future years.

These comparative sub-plots will be pruned in the ensuing year, and the yields over the next pruning cycle should be of much interest.

1929 Sub-Plots:—These sub-plots were pruned to 10" at the end of April, and came into plucking again in September. The lower section of these sub-plots appeared to be affected significantly by the continued dry weather, reflecting a drop in crop. The yields obtained from the three sub-plots over the six months they have been in plucking were 210 and 286 lbs. made tea per acre.

1930 Sub-Plots:—These plots have continued to make good progress. The area has been divided into 5 sections, the yield from each section being as follows:—

	Name of Jat.	Yield lbs. made tea per acre.
33	Dhoolia Maniam	160
34	" "	241
35	" "	169
36	Taikong	210
37	Markong	180

Unplanted Areas:—Further planting up of Grevilleas took place during this year; the Woodbriar slope has been cleared, and pitted and it is proposed planting this area with Grevilleas in such a manner that if planting of tea is continued at a subsequent date, the Grevilleas may be thinned out to give appropriate shade.

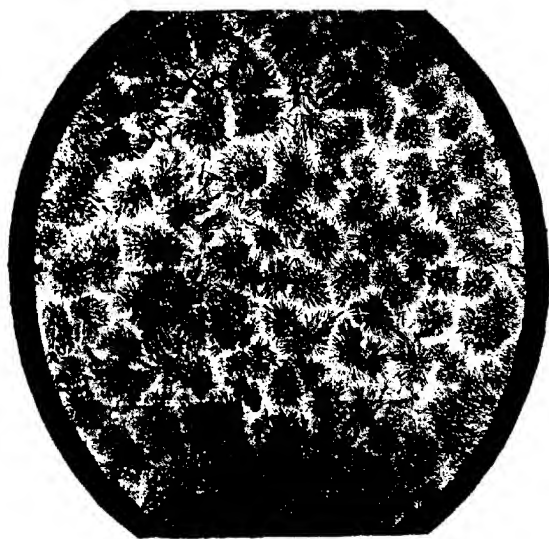
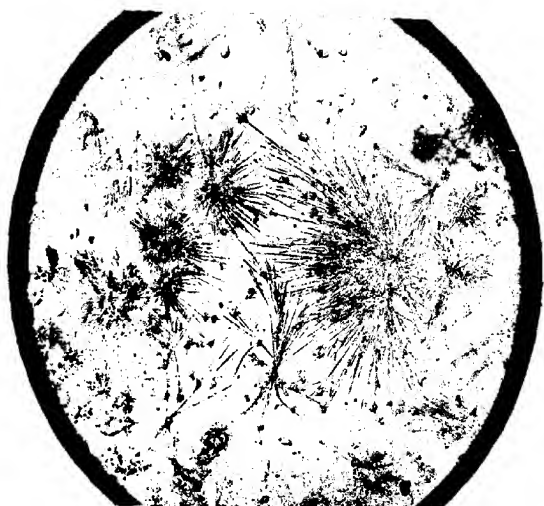
Meteorological:—The year April 1933 to March 1934 was chiefly characterised by the unusual duration of the S. W. monsoon, and the record total rainfall. The monthly rainfalls for April and January were records and the number of days with rain constituted records in May, July and January. The S. W. monsoon started during the third week in May and continued until at least the third week in September after which month north-easterly rains began immediately and continued until the 13th November. There were a few showers in December and January bringing the total rainfall to nearly 10½" more than in any year since 1926-27, and to 37% more than the average for the previous six years. No rain fell in March, which is again contrary to previous experience.

As a result of the distribution of rainfall, temperatures were comparatively moderate except in March when the unusually high maximum temperature of 91°F was recorded on two occasions.

Month.	Rain fall	No. of days with rain.	Average after-noon maximum	Average morning minimum	Humidity		Vap. Pre.		Cloud.	
					8.30 a.m.	3.0 p.m.	8.30 a.m.	3.0 p.m.	8.30 a.m.	3.0 p.m.
April ...	6.55	13	8.41	65.4	88.7	69.1	24.1	23.7	3.7	6.3
May ...	14.95	20	78.0	65.5	92.6	85.8	23.4	24.9	6.4	8.1
June ...	16.15	24	73.2	65.0	91.7	90.4	22.0	22.9	8.0	8.8
July ...	21.66	31	72.6	64.3	95.7	91.9	21.4	23.2	8.7	9.3
August ...	21.43	30	73.6	64.0	95.9	91.8	22.2	23.9	8.0	9.2
September ...	19.90	25	73.1	63.4	94.3	90.4	21.5	22.5	7.7	8.5
October ...	12.09	24	74.1	62.8	92.7	86.7	21.4	22.5	6.9	8.3
November ...	1.53	9	76.6	61.9	88.4	73.8	20.3	21.1	4.4	5.5
December ...	2.32	7	75.5	58.4	91.6	67.4	18.6	19.0	5.1	5.0
January ...	1.15	6	76.6	59.5	92.4	66.0	18.6	19.4	5.0	5.4
February ...	—	—	81.8	39.6	74.8	39.0	15.9	13.9	1.6	0.7
March ...	—	—	84.5	61.2	79.5	51.2	20.5	17.4	1.5	3.0
	116.73	189								

CHEMICAL INVESTIGATIONS

In the communication dealing with chemical investigations given in the Report for 1932-33, I indicated that success had attended attempts to isolate from tea that constituent responsible for the main characteristics of a tea infusion. This ingredient, Caffeine theotannate or its oxygenated derivative in made tea, is quantitatively and qualitatively the most important substance from the aspect of the chemistry of tea. The



isolation of this substance may be regarded as the critical and decisive factor of the theotannin researches. Further chemical progress has been impeded by the lack of an adequate and accurate conception of the nitrogenous substances other than Caffeine present in tea.

The main work during the year has, therefore, been an investigation of the nitrogen in tea, this work being supported by investigations implementing our knowledge of theotannin.

1. CRYSTALLINE THEOTANNIN:—

(a) *Crystalline Theotannin*:—It has been debated since Nanninga's time (1901) as to whether theotannin is an amorphous or a crystalline substance. Nanninga stated that he obtained it in a crystalline form, but was apparently uncertain of this, as he admits that in his subsequent experiments he employed an amorphous form. Deuss disagreed with Nanninga and stated that, like most other tannins, theotannin was an amorphous substance. The present writer was prepared to agree with Deuss up till the year under review, but during the year, theotannin has been prepared in a definite crystalline form.

As this point is of some considerable chemical significance, two micro-photographs of theotannin crystals have been reproduced.

(b) *Theotannin a physical mixture of Tannin*:—In a previous publication of the Department it was demonstrated that chemically theotannin represents a mixture of closely allied tannins. If theotannin be prepared by the method given in a bulletin published in 1930 by this Department and the use of a drying agent be omitted, a mixture of theotannins is obtained which may be separated by their respective solubilities in cold water and Ethyl acetate, giving the following fractions:—

1. Fraction insoluble in Anhydrous Ethyl Acetate.
2. Fraction insoluble in cold water.
3. Easily soluble in anhydrous ethyl acetate and cold water.

Fractions (1) and (2) are soluble in aqueous ethyl acetate and hot water, in the latter case, the fraction remaining soluble even on cooling. Treatment of the aqueous ethyl acetate mixture with fused calcium chloride removes the fraction insoluble in anhydrous ethyl acetate, this theotannin adhering to the clumps of calcium chloride. The fractions all give similar quantitative conversion factors for the 'totals' iodimetric and 'Formaldehyde' methods.

2. THE NITROGEN DISTRIBUTION IN TEA:—

It is not proposed giving here in detail the investigation on Nitrogen in tea. The problem is an intricate one, and not as straightforward as has been made out in the past.

It has been known for 100 years that tea possesses an abnormally high total nitrogen content. It was realised further that Caffeine contributed to this nitrogen; some small reference was also made to nitrogenous substances allied to Caffeine, and the balance was attributed to Proteins. This latter group of substances could apparently be divided

into two fractions, one insoluble in water, the other soluble in water. The former is stated to be present in tea to the extent of 16 to 17% and as much as 12-13% of the latter was claimed to exist in the leaf (I. T. A. Journals 1932). Now, the evidence concerning the protein insoluble in water is fairly clear, though the present investigator is the first to prepare this in as pure a form as possible. The difficulty arises in finding satisfactory evidence in favour of a water soluble Protein.

This water soluble Protein would naturally be of much importance as it would contribute to the quality and nutritive value of a tea infusion, and it is necessary to review the evidence which is supposed to demonstrate the presence of a water soluble Protein.

(1) There is nitrogen present in an infusion of tea which cannot be explained by Caffeine, and this nitrogen is, therefore, stated to be water soluble Protein. The amount of this Protein in made tea is 13% (according to the reference already cited). The question may be asked as to why this Protein has not been isolated in a pure form from a tea infusion. It is considered that, if such a Protein existed in a tea infusion to the extent quoted, the methods available for the isolation of Proteins would have enabled investigators to prepare the Protein and determine its characteristics.

(2) It has been stated that there is a drop in theotannin content during manufacture as a result of precipitation by Proteins (I. T. A. Journals). Now this statement was made as a speculative explanation and not as a proven fact. It was put forward to explain an imaginary drop in theotannin during manufacture, a drop which cannot be supported by accurate analytical procedure. Since by careful analysis it may be shown that there is no appreciable drop in theotannin during manufacture, it follows that the presence of Protein in an infusion still remains to be demonstrated.

(3) Pre-supposing the presence of water soluble Protein to the extent of 12-13 per cent. in an infusion, can there be any explanation of the presence of free theotannin in an infusion of tea? Furthermore, it is difficult to understand why milk in virtue of its protein content should be added to a tea infusion to reduce the astringency of the theotannin products, when according to the current literature there should be ample protein present in a tea infusion to serve the same purpose as the milk.

The evidence is obviously unsatisfactory, and in order to determine quantitatively whether there is a water soluble Protein in tea, the following scheme has been carried out:—

The simple Proteins are classified into four groups:—

Albumens:—Soluble in water, insoluble in alcohol.

Globulins:—Soluble in 10% sodium chloride solution, insoluble in water and alcohol.

Prolamins:—Soluble in 60-70% alcohol, insoluble in water and absolute alcohol.

Glutelin.—Soluble in 0.5% alkali, insoluble in water and absolute alcohol.

Now on current information there may be a water soluble Protein, and possibly a Globulin removed during infusion of tea, owing to the salts simultaneously taken up by the water from the leaf but neither of these proteins would be removed by alcohol. If, therefore, two separate, but similar, portions of tea be extracted; one with boiling water, the other with alcohol, and the nitrogen determined in aliquot portions of the extracts, there should be a considerable difference in the nitrogen equivalents in these aliquot portions, on the assumption of the presence of Protein in the water infusion.

The foregoing scheme was carried out on the bud, first leaf, second leaf and stalk of the flush, with the following results, the figures given representing milligrams nitrogen per 1 gram of dried member:—

Member.	Total N.	N. solu- ble in 90% Alcohol.	N. solu- ble in 75 % Alcohol.	Total Alcohol soluble N.	N. sol- uble in water.	Alcohol Sol. N. Water Sol. N.
	Mgm.	Mgm.	Mgm.	Mgm.	Mgm.	
Bud	58'70 ..	27'20 ..	1'83 ..	29'03 ..	30'75 ..	94'5%
1st leaf	53'30 ..	23'75 ..	1'87 ..	25'62 ..	27'43 ..	93'5%
2nd ..	49'10 ..	21'80 ..	2'21 ..	24'01 ..	25'00 ..	96'0%
Stalk	40'00 ..	20'30 ..	1'70 ..	22'00 ..	24'00 ..	91'70%

The figures are of interest. We note that alcohol is capable of removing 95% of the water soluble nitrogen, an occurrence which would certainly not have taken place if any water soluble Protein had been present in the leaf. The purely speculative evidence outlined already in favour of the presence of Proteins, balanced against the positive evidence shown in the above table against the presence of these Proteins, leaves the result in favour of the latter condition.

A number of inconsistencies in the chemistry of tea are thus removed; the presence of theotannin or its oxy-derivative in a green leaf and black tea infusion can be understood; no loss in theotannin during normal manufacture as determined by analytical procedure could have been predicted; failure on the part of all previous investigators to isolate a water soluble Protein from tea can be explained (it must be pointed out in this connection that previous workers, in order to obtain a Protein from tea, employed a dilute alkali as solvent, which of course extracted the Glutelin, which is insoluble in water); the necessity for adding milk to a tea infusion to reduce astringency is explained, as the milk supplies the required Protein (Caseinogen) to precipitate the theotannin.

From the table shown above we are able to decide the differentiation of the nitrogen in tea, as far as the present investigations have proceeded. The water soluble nitrogen has been divided into Caffeine nitrogen and 'Other nitrogen'. The figures show each form of nitrogen as a percentage of the total nitrogen:—

Member.	Water insoluble N.	Caffeine N.	Other soluble N.
Bud ...	47.60%	30.20%	22.20%
1st leaf ...	48.50%	29.60%	21.90%
2nd leaf ...	49.10%	29.30%	21.60%
Stalk ...	40.00%	30.30%	29.75%

The percentage of the total nitrogen contributed by the Caffeine appears to be consistent independent of the flush member. In the case of the bud, 1st leaf and 2nd leaf, the water insoluble N and 'Other' soluble N appear consistent, differences being shown only in the case of the stalk.

The insoluble nitrogen may be completely removed by 0.5 per cent. caustic soda, leaving a nitrogen free residue of crude fibre. This nitrogen in the form of a Glutelin has been completely investigated, the purest sample obtained containing 12.53% nitrogen on the ashless Protein.

The problem remaining to be solved is the identity of the group of substances comprising the 'Other soluble' N. A small contribution is made by the accessory fraction attached to the Pectin (*see* Pectin Report). This comprises between 1-2 per cent. of the Pectin sample precipitated from a tea infusion by means of alcohol. A second contribution is made by the nitrogenous substance attached to the unknown theotannin combination (*see* Annual Report 1932-33) extracted by 70% alcohol and water. This amount represents from 3 to 4.5% of the total nitrogen. The actual unidentifiable nitrogen in the various parts of the flush was obtained by deducting the Caffeine N from the total N extracted by 90% alcohol. This 90% alcohol extract includes neither the Pectin nitrogen nor the nitrogen contributed by the unknown theotannin combination. The results obtained are as follows, expressed on 1 gram dry member:—

Member	Nitrogen. 90% alcohol.	Nitrogen Caffeine.	Nitrogen 'Other soluble'	'Other Sol. N.' x 100
				Total N. (nearest whole No.)
Bud ...	27.20 Mgms.	17.70 Mgm	9.50 Mgms.	16.00%
1st leaf ...	23.75 "	15.80 "	7.95 "	15.00%
2nd leaf ...	21.80 "	14.40 "	7.40 "	15.00%
Stalk ...	20.30 "	12.10 "	8.20 "	12.00%

We possess, therefore, on an average 8-9 milligram Nitrogen per 1 gram green leaf present in the infusion which cannot be attributed to any particular group of nitrogenous substances.

It might be suggested with some reason that this unidentifiable substance or substances is in the form of one or a group of the purine bases. Thus, hypoxanthine, xanthine, theophylline (1 : 3 dimethyl xanthine), and adenine (amino-purine), in particular the latter have been determined in tea. These substances contain a very high percentage of nitrogen ranging from approximately 31% in theophylline to 52% in adenine (the most prominent). To explain the unidentifiable nitrogen in tea amounting to 7-8 milligrams of N. per gram of dried leaf or 0.7 to 0.8%, it would only require the presence of from 1.5 to 2.0% of a mixture of the Purine bases given above. It must further be borne in mind that Caffeine itself is a Purine base (tri-methyl-xanthine) and the possibility of the intermediate compounds such as those outlined above to the extent suggested is not unreasonable.

Further investigation on the foregoing lines is highly desirable but with the limited staff it is improbable that it will be possible to proceed to any great extent during the coming year.

W. S. SHAW.

REPORT OF THE ENTOMOLOGIST

TEA SCIENTIFIC DEPARTMENT

Helopeltis:—In connection with the investigation on *Helopeltis* it was arranged that I should proceed to Central Travancore to make an extended study of the problem *in situ*. The possibility of the application of biological control was to receive particular attention. I arrived in Central Travancore in the last week of June 1933 taking up residence on the Savarimally Division of Mount Estate.

In dealing with a subject such as *Helopeltis* which has been under investigation for over 60 years, it is inevitable that a certain amount of old ground must be covered, especially when the investigation is commenced in a new District possessing different climatic conditions and adopting other cultural procedures from those districts in which previous work was done. Accordingly, after a discussion with the Tea Scientific Officer a programme of work was drawn up and the investigation was undertaken along the lines laid down in the programme.

1. **Species Involved:**—The exact identity of the species that is actually responsible for the damage was the first point which required elucidation. Two species known to be of importance to tea are *Helopeltis theivora* and *H. antonii*; the former, though the cause of much damage in N. E. India, is practically unknown in Java where the latter species is of most significance. In South India, there was considerable confusion as to the specific identity of the species responsible for damage and it was, therefore, essential to determine this point with certainty. From an examination of several thousands of insects caught from fields of various estates at different times of the year, it has been established that the species mainly occurring in Central Travancore is *H. theivora*. That the other species, *viz.*, *H. antonii*, also occurs here is evident, as an example of this species has been found in a collection of insects received from an estate in Peermade. But its occurrence is so rare, only a single specimen having been obtained from a collection of insects numbering over a thousand, that its presence can hardly be looked upon as causing any anxiety. Small individual variations in structural features and colour of *H. theivora* have, however, been noticed to exist in a few instances, but they can hardly be looked upon as morphological differences justifying their being placed in a separate species or even sub-species.

2. **Breeding Investigations:**—Attempts have been made to obtain some knowledge regarding the life-history and habits of the local pest and during the course of breeding investigations several points of importance have come to light. The period of hatching of eggs and the subsequent development of the larvæ up to the adult condition are both found to be appreciably slower than in N. E. India. For instance, in July, which is one of the most favourable months for *Helopeltis*, the average time taken for the egg to hatch is 13 days in South India as compared with only 6 days for the corresponding month in N. E. India.

Similarly, the larval period which on an average is completed in 9 days in N. E. India is found to extend over 22-23 days in South India. Similar comparisons are obtained for other months also, and the development of the pest in South India, therefore, is not strictly comparable with that occurring in N. E. India. That the local pest is a slow breeding one requiring from 31 to 37 days for a single generation during the months of heaviest attack as compared with only 15 days required by the N. E. Indian form during the corresponding months has been established beyond doubt. This point has a significant bearing on the question of control, as any direct measures recommended as a result of observations made on the life-history of the pest in N. E. India are obviously not applicable to South Indian conditions. To what extent advantage can be taken of this slower rate of development in devising control measures is receiving attention.

Further, the local pest does not demonstrate a sharply marked rise and decline in the rate of its development in different months of the season as is the case with the pest in N. E. India. With fairly uniform maximum and minimum temperatures obtaining in N. E. India during July, August and September, the pest maintains a uniformly rapid rate of development there. In October, however, with a drop both in the maximum and minimum temperatures, especially in the latter, there is a corresponding decrease in the rate of development of the pest and during the succeeding months, the period required for a complete cycle of development is considerably longer as a result of the onset of the cold weather. But here in South India where the maximum temperature fluctuates within wide limits and the minimum temperature remains almost constant in the different months, the pest is found to keep an almost uniform rate of development during the entire period of its infestation with, however, such small fluctuations, dependent mainly on the weather conditions prevailing at the given time. October does not register the initiation of a diminished rate of development as in N. E. India; the minimum temperature which, on account of its sudden drop from October onwards, is considered a limiting factor in N. E. India, does not exert so prominent an influence on the development of the local pest owing to the consistency of the minimum temperatures for the greater part of the year.

A curious feature came to notice in connection with the ratio of male and female insects in catches made in the field. It was invariably found that there was a preponderance of male insects. This may be due to the greater ease with which they are caught on account of their habit of remaining on the exposed parts of the bush; considering, however, that the males were obtained to the extent of half the number again of the females and that this ratio was approximately maintained in a great majority of counts made in different months, it is possible that one may conclude that the males do actually preponderate in the field, though possibly not to the same extent as revealed by artificial counts.

3. **Habits of Oviposition:**—A study of the habits of oviposition undertaken with a view to obtaining some information on the aspect of spraying has brought out the following features:—

Firstly, it has been stated by earlier investigators that the insect first makes a puncture with its proboscis at the spot chosen for egg-laying; it then thrusts in its ovipositor in the puncture thus made and

completes the process of egg-laying. But it is now found that in the majority of instances, irrespective of where the eggs are laid, these regions will have been previously punctured in several other places in addition to those employed for oviposition. It is very rarely that one finds eggs laid on a shoot free from any previous bites. A possible explanation that suggests itself for this behaviour of the insect may be that a vigorous circulation of sap is inimical to the successful hatching of eggs and that the insect avoids laying eggs in such situations and prefers to choose only those places where the flow of sap is arrested by previous injury. This feature connected with the act of oviposition has probably been overlooked by previous workers.

Secondly, in an area where all the bushes are equally badly attacked or even shut up, some bushes are more favoured for oviposition than others. Two bushes situated side by side and equally affected by the pest may show great differences in the number of eggs laid on them.

Thirdly, eggs are to be found on fields which are in a completely 'shut up' condition. This is an interesting condition from the aspects of control. The young larvæ which emerge from such eggs must have a ready supply of young flush available for feeding purposes. Failing the necessary young leaves the question arises as to what the larvæ do under these circumstances. Do they feed on the older healthy leaves,—an occurrence most improbable,—or do they perish in the absence of flushing bushes within the range of distance to which they are capable of migrating? This point has received attention as it opens up a further possible line of attack, *viz.*, the complete removal of tops of such moribund bushes, in other words, 'skiffing' with the removal of eggs and larvæ. Further would spraying, and manuring subsequent to such a 'skiff' carried out at the most suitable time of the year, be of advantage as control? An experiment undertaken on a fairly isolated patch of tea demonstrated that skiffing was decidedly of advantage and the fresh shoots that appeared after a time remained free from attack indicating that the larvæ had all perished. Subsequently, however, fresh attacks began to be noticed obviously due to migration of fresh insects from the neighbouring fields. This finding emphasises the necessity that if the measures outlined above are to be successful at all, they would have to be undertaken over the entire area affected by the pest.

Fourthly, it has already been indicated that the pest in South India does not appreciably increase its rate of development with the approach of the height of season as is the case with the N. E. Indian form. Although this can be looked upon as a favourable sign from the point of view of control, there is yet another feature which would appear to aggravate the difficulty of control. It is believed that during the course of infestation there is a progressive increase in the capacity of the female insect for egg-laying. In other words, a female insect may lay a greater number of eggs at the height of the season than at the beginning of the attack. This point has a significant bearing on the intensity of attack and possibly also accounts for the rapid dissemination of the pest into new areas. This latter feature occurs very often in areas subject to serious *Helopeltis* attacks. Laboratory investigations are in progress to confirm the above finding.

4. **Intensity of Infestation:**—It was considered of advantage to find out a proper method for determining accurately the intensity of

Helopeltis attacks. From such, the actual loss in crops sustained through *Helopeltis* could be deduced. But it was found that, with an insect possessing the habits of *Helopeltis* and, considering that its attack is directed towards a plant which is plucked for leaves week after week, the problem of accurate determination of this factor is by no means an easy one and beset with many difficulties. To mention only a few:—

(a) The intensity of infestation does not bear any relationship to the number of insects present. Whereas it is found in the case of certain bushes, that a small number of insects may completely inhibit growth, instances are also available where bushes, in spite of a comparatively large number of insects attacking them are still capable of throwing out new shoots. This observation suggests that some factor other than mere numbers of insects influences the amount of damage done.

(b) In an affected area, all the bushes are not attacked to the same extent at any one time. Some are severely attacked very early in the season, and even 'shut up' completely, only recovering again as the season advances, simultaneously with the rest of the bushes becoming badly affected. Hence, a consideration of the severity of the infestation on a bush at any particular time would make it necessary to know what its condition had been earlier, or what it was likely to become later.

(c) A third difficulty is presented by the fact that attacks of *Helopeltis* are affected by other factors,—climatic and cultural; it is hardly possible to evaluate, and eliminate the influence of these factors, in arriving at a true conception of the intensity of *Helopeltis* attack. This difficulty upsets any attempts at arriving at a legitimate conclusion in ascribing any given amount of damage exclusively to *Helopeltis*.

It is, therefore, concluded that neither the number of insects nor the injury apparent on the bush gives sufficient data for determining the intensity of infestation from which the extent of damage done by *Helopeltis* could be estimated. Andrew's method of evaluating the intensity was tested under local conditions. It undoubtedly gives a reasonable conception of the severity of the pest but beyond being helpful for purposes of comparison when it is intended to compare the results of any field experiments undertaken, would be of little avail in any estimate of the actual loss sustained through the pest.

5. **Parasites:**—Much interest has centred round the study of parasites during recent years as a means of controlling insect pests. This biological method of control aims at the utilisation of an indigenous or imported parasite, by artificial breeding and liberation in the field. In view of the successful control of certain pests through the agency of parasites, an investigation was undertaken with a view to ascertaining if any suitable parasite of *Helopeltis* exists in South India. Although exhaustive attempts have been made in this direction these attempts have not met with the degree of success anticipated. Two parasites, however, have so far been discovered. The first, a 'grub' of unknown identity, has been obtained from a few *Helopeltis* larvae, but as its presence is very rare, the details of its life-history and habits remain obscure.

The second parasite, a 'worm' belonging to the family Mermithidae has been obtained in larger numbers and in some cases as many as

10% of the insects examined have been found parasitised. These parasites have been isolated from both the young and adult *Helopeltis* and it is interesting to note that infected females are incapable of producing eggs. The specimens of worms were forwarded to the Imperial Bureau of Agricultural Parasitology, England, and have been identified as *Agamermis paradecandata*, Stein. It would appear that the larva of this worm drops about five-sixths of its body upon entering the host and only the head part becomes parasitic. This casting off of a portion of its body is known to take place at a preformed node and in the parasitic larva a scar indicative of the place at which severance took place may be actually seen at the posterior end. The scar during the growth of the parasitic larva becomes less and less recognisable and, presumably, disappears totally after a time. Since this worm is identical with the one already known as infecting *Helopeltis* in N. E. India and Java, the hopes of employing it against *Helopeltis* cannot be considered promising.

There is, however, a third parasite which has been found in Java, viz., *Euphorus helopeltidis*, a Braconid wasp, whose larva parasitises the *Helopeltis* larva. In view of the fact that wasps are of great significance as parasites, this *Helopeltis* parasite merits attention. It is further known that the percentage of infection is very large, being about 50% and sometimes as much as 80-90%. On representations being made to Java for a supply of these parasites, a few specimens have come to hand and the question of the practicability of their importation to South India is receiving attention. Before deciding on importation, it is of utmost importance to investigate every point thoroughly and ensure that *Euphorus* does not already exist in South India. For, if it is determined that it is already present here, the factor or factors that inhibit its coming into prominence may be expected to affect the imported parasite equally. For this reason, specimens of *Helopeltis* are being received from as many estates as possible at regular intervals in order to carry out this aspect of the work.

Prior to importation of *Euphorus*, there are again a number of factors about which definite knowledge is essential chiefly, the breeding technique, as considerable difficulty is experienced in Java in rearing this indigenous parasite on a large scale under laboratory conditions. It must also be borne in mind that the benefits obtained through *Euphorus* in Java are not due to success of any artificial propagation of the parasite but only the result of its unaided natural activity. A clearer knowledge of the technique and other allied details regarding the habits of the parasite are, therefore, of utmost importance if it is found to be advantageous to introduce this parasite into the estates in South India to check the ravages of *Helopeltis*. These points are receiving careful attention.

6. Cultural Factors Affecting the Problem of *Helopeltis*:—It has long been recognised that most of the cultural operations undertaken on estates, e.g., pruning, plucking, shade and manuring, are to a greater or lesser degree bound up with the question of *Helopeltis*, since it is known that bushes which have been weakened as a result of lack of proper attention suffer most from the virulence of the pest. Some of the cultural practices have received investigation during the year:—

(a) Pruning:—The time of pruning and the type of pruning have a profound influence on the attacks of *Helopeltis*, and on comparing

the merits of dry and wet weather pruning it becomes evident that dry weather pruning is decidedly the better of the two in mitigating the ravages of the pest. If tea is pruned in May, June, July, August or September, fresh growth, which begins to appear over the periods extending from July to November, will be available for the large number of insects that are usually present at those times of the year. For, it must be remembered that *Helopeltis* will be in an active state of multiplication from June to November, the worst of these months being September-October. The buds are attacked as they appear and the growth is completely retarded. Recovery can take place only a number of months after the pest has lifted, which may be in January or February. Thus it is found that the bushes remain practically unproductive for 6 to 9 months and sometimes even longer, if Corticium attacks follow *Helopeltis*.

If, on the other hand, pruning is carried out from November to February, *Helopeltis* is disappearing, the pruned bushes are not seriously confronted with the pest and by the time *Helopeltis* becomes conspicuous again in the following June, the bushes will have sufficiently recovered from pruning to be able to offer some resistance to the coming attack. Figures which are available over a complete pruning cycle would appear to substantiate the foregoing theoretical conclusions. Bushes pruned in December-January come into plucking normally and are not handicapped as is the case with fields pruned during the monsoon.

Regarding the type of pruning, I might quote here the opinion expressed by the Tea Scientific Officer which appears to be most appropriate for adoption in *Helopeltis* affected districts. "Heavy pruning should be entirely eliminated from a pruning policy except in the case of bringing in young clearings. The lowest level should be 12"-15" and it might preferably be made higher. The danger of bushes becoming too high after two or three years is obviated by a system of 'skiffing' carried out after *Helopeltis* has commenced to disappear. The elimination of new wood at pruning time should be reduced to a minimum and as many points as possible left".

In summing up the foregoing account regarding pruning in case of tea susceptible to serious *Helopeltis* attacks, two cultural factors of control require emphasis. They are, firstly, the elimination of monsoon pruning, and secondly, the adoption of a high combined with an exceptionally light pruning. Several points have, however, to be kept in mind when considering the advisability of adopting the measures outlined above. Branch canker and 'Die back' as a result of dry weather pruning (*i.e.*, from December to February) and production of 'banji' and diminished crop as a result of high pruning are, however, the possible objections. On an estate badly attacked by *Helopeltis*, however, these points would not be of significance compared with the reduction in damage resulting from *Helopeltis*.

(b) **Alternate Row Pruning:**—This method of pruning, which is claimed to have met with success in Java in combating *Helopeltis*, is being experimented with on a small scale on Mount Estate and it is too early to judge the results. The absence of a satisfactory explanation to account for the disappearance of the pest by this means has no doubt caused general hesitancy in adopting this system. Further, it is stated that only good areas from which the worst effects of the blight have been eliminated by previous good treatment, may be expected to respond

to alternate row pruning. It should, however, be given a fair trial, on a number of estates in South India before any judgment is made as to its advantages and disadvantages.

(c) **Partial Abandonment of Attacked Fields:**—The policy of partially abandoning the attacked fields by the elimination of plucking and omission of attempts to combat *Helopeltis* can never be considered as a factor in the control of the pest. It was actually found in a few instances where fields had been rested without plucking for 3 or 4 months that the bushes were no better off from the point of view of *Helopeltis*. The idea prevalent that tea would become immune after several attacks appears to have no foundation in fact. The principle of 'laissez-faire', i.e., allowing the pest 'to work itself out' should, therefore, never be adopted, for there is no reason to believe that this will actually happen. As a rule, the pest will grow more and more serious if steps towards its control are not adopted.

(d) **Shade:**—No direct relationship could be traced between the attack of *Helopeltis* and the presence of shade. During the months when the pest is prominent sunshine is not much in evidence and climatic conditions are such that the effect of shade is scarcely felt either by the bush or the insect. Although the worst attacks are often noticed in areas with heavy shade, open gardens are also liable to equally heavy attacks and it would not, therefore, be correct to state that heavy shade encourages the pest. If there is any connection between shade and *Helopeltis* it can only be indirect in that it reduces branch canker during the summer months and maintains the bushes in a more healthy condition to meet the beginning of the *Helopeltis* attacks.

7. **Jat of Tea in Relation with *Helopeltis*:**—Although no jat of tea can be said to be quite immune to the attacks of the insect, great variations are noticeable in the degree of resistance afforded by different jats. It is well-known that China and China-hybrid jats are undoubtedly more susceptible than other jats and there are abundant evidences on estates to show that good Assam indigenous jats suffer least. The fields that remain free from attack are invariably those planted with good jats and even where this class of bush is present in the midst of poorer and badly blighted jats, a marked difference in favour of the former can be noticed. Whether the quality of decreased susceptibility is inherent in the jat itself or whether it is brought about by the bush assuming a particular physiological condition as a result of the interaction between the soil environment and the bush, the influence of jat of tea on the attack of *Helopeltis* cannot be omitted from consideration. It must, however, be admitted that this factor alone does not entirely determine the susceptibility or otherwise of a bush to an attack of the pest.

8. **Other Host Plants of *Helopeltis*:**—An attempt to investigate other host plants that harbour the pest has so far revealed the presence of 11 different plants in addition to tea. Many of them are small plants or weeds growing amidst tea or in nearby swamps, while a few are fairly large sized shrubs or trees. The insect has been found on these in all stages of development and in some cases eggs also have been noticed on them. It is significant that many of these plants produce fresh tender leaves only during the dry weather and they are thus very suitable for harbouring the pest when the tea itself is not affording a suitable supply of food and adequate shelter.

NETTLE GRUBS.

The situation with regard to this pest has ceased to be of no concern and from the reports of outbreaks received during the year there can be little doubt that the pest is increasing in frequency and intensity of attacks in the districts of Travancore. An article on the subject was published in the *Planters' Chronicle* with a view to facilitate the recognition of the various nettle grubs by Planters, and enable prompt and energetic steps being taken to check their ravages without allowing them to assume a dominating position as is the case in certain districts of Ceylon. Investigations are also proceeding in order to obtain a more comprehensive knowledge of the South Indian species of nettle grubs.

OTHER MINOR PESTS.

Dasychira Horsfieldi:—The large yellow hairy caterpillars of this insect have been observed feeding on tea in November. The damage was not considerable, and although they were found to persist over a long time in the area where they were originally noticed, no tendency towards spreading to the neighbouring areas was noticed. In Ceylon these caterpillars are often mistaken for nettle grubs, although in the present case they were not associated with the latter pest.

Pyralid Caterpillars:—These caterpillars, whose identity is yet undetermined, have been noticed frequently since February, 1934. No authentic record of their occurrence on tea appears to have been made previously. The caterpillars are about 1.3 cms. in length, are brown in colour with black markings, and possess two rows of warts, bearing hairs on each segment, and they are sluggish in movement. They are destructive to bushes whenever they occur and have a habit of webbing together the leaves of two or three adjoining branches and feeding gregariously. The older leaves, which are generally preferred, are skeletonised as a result of their feeding and eventually turn brown. Pupation takes place on the leaves themselves in a slight cocoon. The webbed mass of dry brown leaves are conspicuous objects, they may be easily removed together with the enclosed caterpillars and destroyed by fire. It is significant to note here that the Mermithid worm, which ceased to be noticed on a *Helopeltis* after the monsoon, were found infecting a large number of these caterpillars.

Aphis:—Preliminary trials were made against this pest with Nicotine sulphate supplied by the Imperial Chemical Industries, Ltd. With a dilution of 1 in 800, laboratory tests gave satisfactory results but field trials have yet to be made to determine whether spraying with Nicotine sulphate would be economically possible against tea aphids.

Acknowledgements:—My acknowledgements are due to the following:—The Secretary, Central Travancore Planters' Association, for his assistance in arranging for samples of *Helopeltis* to be forwarded from various estates, and to the Managers of Estates who forwarded insect materials for examination, and particularly to Mr. Gibbon of Mount Estate, who has co-operated in my work and given invaluable assistance to me throughout my present stay on Savarimally.

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Entomologist.

ANNUAL REPORT
OF THE
MYCOLOGIST
—
TEA SCIENTIFIC DEPARTMENT
—
LEAF DISEASES

Brown Blight:—The Brown blight organism is technically known under three different names,—the names suggesting the type of spore formation. Early in its life-history an imperfect stage consisting of spore bodies producing numerous conidiospores is usually observed. When these conidial fructifications are forming in some cases certain brown hairs (setæ) are associated with them. The form exhibiting the hairs is called "Colletotrichum," but when no such hairs are evident with the conidial masses the same fungus is termed "Gloeosporium." In its perfect stage, which appears some time later, the Brown blight fungus is known as *Glomerella*. Observations here appear to indicate that no such distinction can be made in the conidial stage. The brown setæ were produced on most of the artificially inoculated leaves—in other words, the fungus was a *Colletotrichum*, but when re-isolated on agar cultures, the formation of these hairs were not always observed; on naturally infected specimens too the formation of the setæ were not regular, the fungus appearing both as a *Colletotrichum* and *Gloeosporium*.

Inoculation experiments with *Colletotrichum* on leaves washed with a weak solution of mercuric chloride were attempted. The fungus was found to infect only the wounded leaves, the wounds being made artificially by means of a flamed knife. It was observed that leaves that were wounded on the lower surface were more vigorously infected during the earlier stages than those wounded on the upper surface.

After a preliminary very scanty mycelial growth the fungus produced abundant pink conidial masses on both surfaces of the leaves. With the growth of the fungus the leaves were found to assume a brownish discolouration. The conidia were borne on small stalks which were embedded for some distance within the tissue of the leaf. The brown setæ characteristic of *Colletotrichum* was also observed in association with the conidial fructifications. The perfect stage of the fungus was produced but only considerably after the formation of the conidia. Measurements of both the conidia and the ascospores in the perithecial fructifications conformed to those observed on natural specimens and to the species described as *Colletotrichum Camelliae*: *Glomerella cingulata*.

Black Rot:—Although no study has been possible of this disease which is caused by a species of *Corticium*, certain difficulties expressed with regard to control measures against this disease require comment.

It has been stated that by spraying with either Bordeaux mixture or lime sulphur solution certain undesirable effects are produced in

the final tea. In the case of Bordeaux it has been suggested that sprayed leaves carry a certain amount of "Copper poison" but it may at once be pointed out that experiments conducted elsewhere have shown that no such poisonous effects materialise, as the amount of the fluid that adheres to the leaf is so very small as to be below the minimum required to produce a toxic effect.

With lime sulphur a taint in made tea is reported, but no experiments have been conducted to examine this suggestion. Any such effect, *i.e.*, either 'tainting' due to spraying with Lime sulphur solution, or poisoning due to Bordeaux, may further be eliminated if spraying is carried out after the infected area has been skiffed.

Witches Broom Disease:—A brief description of this disease as occurring in Ceylon and Nyasaland was given in last year's Mycological Report. It was pointed out that the Ceylon disease differs in some respects from the Nyasaland one. A report of the occurrence of a similar disease was received from an estate in South India and a search of the Station tea indicated the presence of such a disease on some bushes.

The disease observed here was characterised by the presence of small crinkled leaves on thin shoots. The leaves were situated close together on the shoot. In some cases all the leaves had been shed, only a bud remaining at the tip. In advanced stages the entire shoot was found to have died back. The older leaves were observed to be normal, only the growing shoots exhibiting the appearance described. The bush appeared to consist simply of twigs. No marked yellowing was noticed on the leaves examined and in this respect the disease observed was found to resemble more closely the Ceylon "witches broom disease" rather than the Nyasaland "Yellows disease".

No casual organism has been found. The disease is considered to be a deficiency disease caused by lack of sulphur in the soil.

In Nyasaland an application of Potassium sulphate, Ammonium sulphate and Sulphur in the proportion of 1 : 1 : $\frac{1}{2}$ appears to have enabled such bushes to recover their normal health. A similar application has been made to a bush showing the diseased symptoms, and to another bush two and a half ounces of Sulphate of aluminium has been applied. The bushes were partially pruned leaving one diseased branch, to observe the effect of treatment. Fresh shoots have been thrown out from the pruned branches and appear to be healthy, but further observations are necessary before arriving at conclusions regarding the effect of treatment.

THREE NEW LEAF INFECTING ORGANISMS

In addition to the fungus responsible for Brown blight three other organisms hitherto not reported on tea have been isolated.

1. In December a number of infected leaves resembling in most respects those attacked by Brown blight were submitted to a microscopic examination and the presence of an organism was noted which differed from *Colletotrichum* (Brown blight fungus), in that the asco-spores produced were of a dark brown colour.

Isolations on agar media gave at first both *Colletotrichum* and the other new fungus. Further isolations gave a pure growth of the latter. Fruiting bodies formed readily on the surface of the medium. The Perithecia were grouped together, each of them being ovoid to pear-shaped and measuring from 0.5 to 2.8 mm. in diameter. The asci were clavate to cylindrical (80 to 110 x 18 to 22 m.) (m—microns— $1/25000$ of an inch), eight spored, the spores when mature being of a dark brown colour and sausage shaped (22 to 25 m. x 10 to 12 m.). The immature spore is colourless and has a characteristic tail-like appendage which disappears as the spore assumes the dark brown colour. The tail measured from 12 to 14 m. by 3 to 4 m.

Inoculation experiments with artificial cultures on sterilised leaves kept in moist chambers indicated that the fungus was a wound parasite. Conidia were not formed either on agar media or on artificially inoculated leaves.

2. A second organism was also isolated from leaves showing the characteristic *Cercospora* leaf spot. Instead of *Cercospora*, an ascomycetous fungus was produced on the agar cultures on which the *Cercospora* spotted leaves were attached. The perithecia are of a light yellow colour producing light brown uniseptate spores. The spores measure on an average about 14 m. by 3.5 m. At the region of the septum a constriction occurs. Attempts are being made to identify the fungus, and to study the nature of this organism.

3. Some leaves were found adhering together on a bush. On closer observation, the leaves were found bound together by means of fine mycelial threads. The mycelium was covering the under-surface of the leaves. Instead of exhibiting a healthy green colour, the leaves were brown and of a flabby nature. A microscopic examination in the laboratory did not show any particular type of spore, but certain typical clumps were observed. These resembled the sclerotia produced by certain species of *Corticium*.

The fungus was brought into culture and numerous such sclerotial bodies formed. The mycelium was of a light, dirty brown, colour (cream coloured in mass). Some of these bodies which were examined indicated that they were composed of small, stout hyphal cells, these cells differing in size and shape considerably. From the nature of these bodies it is considered that the isolated organism is probably a species of *Corticium*.

Inoculation experiments have been attempted but up to the present no success has attended the infection of healthy and wounded leaves.

STEM DISEASES

Pink Disease:—Artificial infection experiments on potted tea plants conducted under varying conditions of moisture, and on healthy and wounded tissues, allow of certain conclusions being drawn, most of these being subsequently corroborated by a second series of observations made during September (1933) on infected tea growing under natural conditions. *Corticium salmonicolor* is a true parasite in the sense that it is capable of infecting unwounded healthy branches as well as wounded branches. For the successful infection of the fungus in tea, highly moist

conditions are necessary and any dry weather that may be experienced after infection sufficiently controls the spreading activity of the fungus. Although canker formation is usually observed on Pink disease infected tea branches, such cankers may not always follow an infection of the fungus. Where canker formation has taken place the plant tends to throw out fresh branches a short distance below the canker. Entire branches showing infection by this disease have succumbed a short time after the attack.

The pustular stage (or the Necator stage) was of more frequent occurrence than the basidial stage. The formation of the pustule followed after a preliminary growth of the shining pinkish mycelium. Just before these pustular bodies formed, the mycelium appeared to form small cushion-like condensations on the branches, and mycelia appeared to enter the cortical region from these cushions before emerging ultimately in the form of the pink to orange-red pustules bursting through the bark. Although formed on all the portions of branches, the pustules were abundant on the woody portions, and in the region of the fork of a branch. It was observed that these bodies were easily dislodged by a slight movement of the branches when they had attained the orange-red colour. It is possible that in nature, wind and rain are responsible for the shaking of the branch, thus causing these bodies to be dislodged and scattered. Fresh mycelial growth was observed emanating from these bodies.

During September when the disease on some of the tea bushes on the Station was noticed, a search in the area under gums indicated that this plant had also been attacked by Pink disease. Some of the lower branches were found dead with all their leaves shed. A close observation of the branches disclosed tiny spots covered with a papery layer of the epidermis and beneath the layer of epidermis were situated small orange red bodies, similar, in all respects, except in size, to the pustules found on Pink disease-infected tea. Isolations from these bodies confirmed that the *Eucalyptus* infecting fungus was similar to the fungus isolated from tea. Agar cultures from both the hosts have developed pustular masses and these have also been produced on sterilised blocks of wood.

Control measures against this disease were tried on infected tea bushes. Most of the infected bushes were pruned when more than one branch demonstrated advanced development of the fungus; where only a single branch was diseased or showed signs of the presence of the fungus, the particular branch was excised from the bush. All the prunings were burnt.

Infected pruned bushes and those immediately surrounding them were subsequently sprayed with a fungicidal fluid during October. An examination of the fresh shoots from the pruned bushes has not shown any sign of the disease, but further observations are necessary during the rains when the infection generally starts. One feature, however, became evident on a bush that had been only partially pruned leaving a portion of the diseased branch still on the bush. An examination of this plant has shown the presence of cankers on the remaining portion of the pruned branch and also on the main stem itself over which the fungus was found growing. This observation clearly indicates the necessity for the entire removal of all branches well below the region of visible sign of the fungal growth.

The following programme is suggested for the control of Pink disease: Bushes to be pruned early during the Dry weather, and protected by fungicidal spray fluids. It is considered necessary that at least five applications of the fungicide should be made during a pruning cycle of three years. Pruned bushes should be sprayed late during the hot weather and as near the rainy season as possible preferably in May, Bordeaux or Burgundy mixture with an adhesive being used for this application. The fluid should be full strength. Post-monsoon spray should be carried out as soon as the rains have ceased; a half strength mixture without an adhesive may be used for all post-monsoon applications. A constant watch should be maintained and the disease dealt with immediately it is noticed on any bush in an area, as this considerably decreases the activity of the fungus.

ROOT DISEASES

In addition to the reports of the presence of *Rosellinia* Portia, and Fomes, another root rot caused by a fungus *Armillaria* was reported from the High Range. Eelworms continue to be the cause of considerable damage to young seedlings in tea nurseries. A fungus has been isolated from some tea seedlings; this fungus was found at the collar and caused the death of infected plants. Experiments commenced last year on the subject of control of *Rosellinia* root rot were continued. The more salient features of work done in connection with root diseases are reviewed.

Porium Root Rot:—It was indicated in my report for 1932-33 that fructifications were obtained when the fungus was inoculated on sterilised blocks of wood. The formation of similar fructifications were observed on naturally infected specimens which were buried in close proximity to a healthy plant growing in a pot. The fructifications developed in the form of a sheet at the region of the collar and was observed spreading on the soil surface where some dead leaves and other organic material had fallen. It is proposed to send a portion of the fructification to the Imperial Institute of Mycology for purposes of identification.

Armillaria Root Disease:—The first report of the occurrence of this disease came from the High Range on *Grevillea*s and subsequently the fungus was found causing root disease of *Dadaps* and tea. Although its presence in South India has only been noticed now, all other tea growing countries have reported the prevalence of this fungus.

The fungus is also parasitic on shade and green manure trees—*Grevillea*, *Albizia* and *Acacia*. The fungus has been known to occur on many forest trees either as a saprophyte or a parasite.

Armillaria root disease has been termed "The Collar splitting" disease and the "Collar crack" disease, both names suggesting the nature of the damage caused by the fungus; in America where it occurs on *Pines* and *Oaks* the fungus is known as the *Oak* fungus.

The collar split, or the fissure, is considered to be caused by the growth of the mycelium. The split is not confined to the collar region alone, but has been found extending to the roots also. The mycelium

in these regions is generally found covering the split wood in the form of white to cream coloured sheets, these sheets being known as Xylstroma. The fissures were common in the case of Grevilleas and tea but were absent in the case of the Dadap specimens. On the Grevilleas, besides the sheets of mycelium, white strands of the mycelium were observed penetrating the wood. An exudation of resin observed on Grevilleas could be attributed to the action of the fungus.

A second characteristic of the disease is the presence of thick black cords (rhizomorphs) of the mycelium of the fungus running irregularly over the surface of the root. Some of these cords are as thick as a shoe lace. They are generally brittle and break easily, and spread freely in the soil causing infection of other plants with which they come in contact.

Black streaks mark the wood in very late stages of attack. Most of the tea specimens examined were dry and the wood was light—the fungus causing "dry rot" in these cases. In Nyasaland, a "wet rot" has been observed, but this condition is attributed by some workers to subsequent bacterial action rather than to the action of the fungus. On Dadaps and Grevilleas a certain amount of "wet rot" was observed.

Although no fructifications of *Armillaria* have so far been observed, they are of the type of the ordinary mushrooms or toad-stools and of a light honey-brown colour.

Armillaria appears to be a disease peculiar to estates situated at high elevations, and Grevilleas are considered to be infected after the third year from planting; on tea, the fungus was observed on young as well as old bushes. The fungus begins its life as a saprophyte from jungle stumps and spreads both by the growth of the rhizomorphic cords of the mycelium and by the dissemination of spores.

As in the case of the other root diseases, since the fungus originates from jungle stumps, the removal of such sources of infection is necessary. All diseased bushes and their roots should be up-rooted and burnt. The soil should be dug over to a depth of about 2 feet and any rhizomorphic cords should simultaneously be removed and burnt. In Ceylon (Tea Quarterly Vol. III, Part IV, Nov. 1930) these measures appear to have brought the disease under control. In Nyasaland, too, the same recommendations have considerably checked the spread of this disease.

Trenching should be practised in cases where more than one bush has died in the same patch. A deep trench of about 36" depth has been suggested but this should depend on the nature of the soil; where the soil is loose, such deep trenches are essential. A ring of healthy bushes are to be included within the isolation trench, these trenches should be kept clean and open.

In Malta the application of Sulphate of Iron as a wash on infected portions appears to have controlled the disease on Citrus plants. In addition, a layer of Sulphate of iron was spread over the diseased area.

Toxicity Tests against Rosellinia:—Results of certain preliminary trials with Sulphate of iron against the growth of *Rosellinia* were given in the report for 1932-33. Further work with other sulphates was

continued, with certain modifications. Growth measurements recorded after treatment of the growing medium indicated that certain of the sulphates, especially Sulphate of aluminium, Potash alum and Iron alum were capable of checking the growth of this fungus to a considerable extent.

Although Sulphate of ammonia and Sulphur have been reported as equally efficient in bringing about the desired change in acidity on field experiments, under laboratory conditions these were not successful in so far as the fungus was found growing on the media treated with these chemicals as well as on the control dishes which were not treated.

The application of lime to a sample of soil which was sterilised before attempting to grow the fungus was observed to bring about a high degree of alkalinity under which condition the fungus grew very well.

Further work will be taken up in this direction and instead of agar media, it is proposed observing the growth of the fungus on soils treated with the various salts.

A Root Disease of Nursery Plants:—Some tea plants in the Station nursery were found dead and on extracting these from the soil the roots showed a healthy exterior, but on opening the bark, certain greyish black bodies were found situated on the under-surface of the bark and on the wood. The wood was also slightly discoloured, the greyish discolouration resembling that characteristic of *Diplodia*. An examination of these bodies under the microscope indicated that they were of the nature of *Sclerotia*.

Attempts to isolate the fungus were successful and on agar media, similar black bodies described on naturally infected specimens were observed to form. One such *Sclerotia* producing organism is the *Rhizoctonia* fungus; work is being done to study the nature of the isolated organism.

Eelworms:—The problem of control of eelworms on nursery beds still requires investigation and on the receipt of some tea seedlings attempts were made to study the subject. With this object in view infected plants and some healthy plants were planted alternately to observe if the worms can travel in the soil. It was observed that some of the seedlings (healthy) died, and eelworms were present on them.

Some of the diseased roots were washed in a vessel and the suspension was examined to find the particular genus to which the tea infecting worm belonged. It was observed that but for the size, both the female and male appeared almost alike. The female worm was slightly stouter than the male. It is possible that the worms examined belonged to the genus *Tylenchus*. The female was found to contain cysts of the worm. It was further noticed that in some of the dead female worms, some live larvae still encased in the cyst were moving within their shells, twisted in the form of a figure eight. As many as two or three such larvae were found in the body of these worms. The explanation of the presence of the live larvae in the body of the dead mother is obscure.

Various chemicals have been tried towards controlling eelworms, but none appear to give satisfactory results. Formalin kills the worm, but its application can only be made on a limited scale and on small nursery beds. Hot water treatment and the sterilisation of soils by steam has been suggested, but these methods are often difficult under practical conditions. The only remedy appears to be the removal of all plants that are dead, or are suspected of infection, from the bed (if only small in number) and their destruction. A small quantity of lime may be sprinkled over the surface. If a large number of plants shows the infection, the only method is to make a new bed, the soil of which is free from eelworms.

M. K. SUBBA RAO.

Mycologist.

COFFEE SCIENTIFIC DEPARTMENT

Annual Report 1933-34.

I have the honour to present the Administration Report of the Coffee Scientific Officer for the year ending 31st March 1934, dealing with work in progress in connection with coffee problems.

As in previous years, the work has been centred at the Mysore Government Coffee Experiment Station, Balehonnur, under the direction of Dr. L. C. Coleman. Work in co-operation with the officers of the Station has been continued in connection with breeding, spraying and miscellaneous problems.

The Scientific Officer was on home leave from April 10th to October 8th, during which period the Assistant carried on routine work at Balehonnur. From November, the Assistant returned to Sidapur and was at work there for the remainder of the year.

Working conditions at Sidapur have been improved by alterations in the old building, the provision of bigger windows and a water supply for laboratory purposes.

The report comprises, as usual, a short account of touring work, scientific investigations in progress and general notes on coffee problems which have been raised during the year.

TOURING.

The Assistant visited Coorg in July in connection with the field work on Eelworm, followed by a second visit in September for the same purpose. The work of these visits will be dealt with later in the report. A visit to an estate in the Bababudins in August led to the discovery of parasitic eelworms in an area of coffee where supply failure has been very high.

In response to an urgent enquiry from the Anamallais, the Assistant paid a visit to the district in August to report on serious damage to coffee suspected of being due to spray injury by Burgundy mixture. At the time of the visit, it was practically impossible to decide what was the actual cause of the leaf fall as by the time the visit was made the situation was complicated by the presence of some leaf fall due to Leaf Disease and Die Back. From a consideration of the climatic conditions obtaining at the period when damage was greatest, it is possible that the heavy leaf fall was the consequence of spray injury, not on account of any defect in the preparation of the mixture, but due to a normal Burgundy spray carried out in moist weather. Spray damage is often very capricious in its appearance and the requisite conditions for its appearance may not often occur, but Burgundy is generally recognized as a less safe spray than Bordeaux and if conditions are favourable for spray injury, it is more likely to appear with the former. Studies on spray injury with copper containing sprays in other countries have shown that moist weather during the spraying period is often a predisposing factor.

The Scientific Officer visited Sidapur during November to arrange further work on the Eelworm problem.

INVESTIGATIONS.

Leaf Disease—Progress Report.—It is regrettable that progress in the work on the inheritance of resistance and the study of the behaviour of the Station selections to Leaf Disease strains has been held up. A good deal of difficulty has been experienced with the stock cultures, particularly during the dry season and the accidental loss of one pure strain at a period when the re-establishment of cultures was most difficult completely held up further work.

More satisfactory means of housing cultures and carrying out a large number of tests at a time are in preparation and there is every hope of substantial progress during the coming year.

Die Back—Progress Report.—The monsoon of 1933 was marked by very severe attacks of Die Back in a great many estates both in Mysore and elsewhere and both sprayed and unsprayed areas suffered in consequence. It was not possible to take up work until October but a visit was paid to several affected estates in early October and this, with a study of the data collected in connection with crop losses and spray mixtures help to throw a little light on the circumstances leading up to the attack.

The severity of the attack is clear from the following figures obtained from the observations carried out in the time and strength of spray mixtures experiment in 1932 and 1933:—

TABLE I.

Percentage Die Back in September 1932 and 1933.

		Per cent.	
		1932	1933
0.5 Pre and Post monsoon spray	.. ..	3.1	8.7
Control. Unsprayed	.. ..	8.8	23.5

It can be seen that Die Back was three times as severe in 1933 as it was in 1932 in this area, though it was not an area that suffered as severely as many others, even in 1933. It is also clear that as far as this area is concerned, spraying did exert a protective influence as in each year the amount of Die Back in the controls was just under three times as much as in the sprayed plots. In some other areas, however, the degree of control was not as great as this and sprayed areas seemed to suffer as severely as others. In association with Mr. M. J. Narasimhan, the Mysore Government Mycologist, and Mr. K. H. Srinivasan, Assistant Director of Agriculture, Chikmagalur, a short note was published indicating the conditions which appeared to be the main predisposing causes. The main point of importance was that the theory put forward formerly that Die Back was a consequence of defoliation by Leaf Disease needed considerable modification in the light of experience in 1933. During this year, there was no lack of evidence that the onset of Die Back was not necessarily preceded by defoliation, as shoots were frequently found in which shoot decay had commenced when a number of pairs of healthy leaves up to the apical bud were present.

In view of this, it appeared necessary to make a more accurate study of the part played by the fungus constantly found in Die Back shoots.

A number of isolations made in November gave a series of cultures of *Colletotrichum coffeanum*. This is in agreement with cultural work done in previous years when this fungus occurred in practically all isolations attempted. At the same time, isolations were also made from leaves of coffee suffering from Brown Blight, with which the same fungus, or a strain of it, is associated. In view of the possibility that there may occur especially virulent strains of this fungus, it was decided that a study of a large number of isolations from coffee shoots and Brown Blight affected leaves was desirable.

The cultural work showed that the fungus is an extremely variable one, both in regard to its vegetative characters in culture and to its ability to form asexual spores (conidia) and the perfect *Glomerella* stage. Furthermore, cultures were found to be very unstable in regard to these characters, and sometimes gave rise to variants without apparent cause. This instability of type in this fungus has already been commented upon by Small in his work on the genus *Colletotrichum*.

The variation in ability to form the perfect stage, which is characterized by the production of a second spore form—the ascospore—is of particular interest because cases are known of differences in infective capacity of the different spore forms.

Up to the end of the year, no inoculation experiments were possible owing to the absence of suitable material. These are to be taken up as soon as the hot weather growth gives ample supplies of young shoot. Further work is planned to study the strains of the fungus, to test the infective capacity of both forms of spores and to establish satisfactory inoculation experiments.

It may be remarked, in this connection, that a study of scorched leaves and shoots from Robusta plants suffering from drought during March also showed the presence of *Colletotrichum* among other fungi. It is clear that this fungus is very common on any portions of coffee plants which are weakened or damaged in any way.

Studies on Spray Mixtures.—The leaf count method of studying the relative value of different adhesives and mixtures was followed as in previous years. The extent and severity of the disease attack in this series of plots was very great and the leaf retention at the end of September was roughly half that obtained in previous years. Two new treatments were included, one employing Gingelly oil as an adhesive with Bordeaux and the other, a proprietary colloidal copper spray known as Bouiscol. These took the place of plots formerly sprayed with Linseed Bordeaux at a strength of 20 and 40 ozs. The results for the year are given in the accompanying table. Previous years' results will be found in earlier reports and in the bulletin on spraying (Sta. Bul. No. 9).

TABLE II.

Leaf Amount and Percentage Infection in Plots receiving different types of Spray, 1933.

	Leaf Amount	Percentage Infection
Gingelly Oil Bordeaux	3.66±.16	44.1
Bordeaux without Ad.	3.56±.25	43.9
Casein Bordeaux	3.50±.25	43.9
Fish Oil Burgundy	3.37±.32	53.6
Alum Bordeaux	3.31±.27	54.0
Resin Soda Burgundy	3.27±.21	54.4
Linseed Bordeaux	3.23±.24	50.4
Burgundy without Ad.	2.80±.18	58.5
Resin Soda Bordeaux	2.75±.20	53.4
Bouisol	1.97±.14	46.8
Control unsprayed	1.72±.14	51.1

The first seven sprays in the above list show no real difference from Casein Bordeaux, while the remainder are definitely poorer in the protection they have afforded. It is interesting to note the lower percentage infection in the first three sprays. A similar phenomena was observed last year when, on the basis of percentage infection data, the sprays were divided into two groups, one containing Casein, Linseed, Resin Soda Bordeaux and Bordeaux without adhesive and the other Alum Bordeaux Resin Soda Burgundy, Fish Oil Burgundy and No Adhesive Burgundy. Resin Soda Bordeaux and Linseed Bordeaux are not in the first class in 1933. The results are given in the table arranged according to percentage infection.

TABLE III.
Percentage Infection data for 1932 and 1933.

	1932	1933
	Per cent	Per cent
GROUP I.		
Gingelly Oil Bordeaux ... ..	...	44.1
Bordeaux without Adhesive	9.5	43.9
Casein Bordeaux	10.4	43.9
Linseed Bordeaux	14.1	(50.4)
Resin Soda Bordeaux	14.1	(53.4)
GROUP II.		
Resin Soda Burgundy	21.7	54.4
No Adhesive Burgundy	19.6	58.5
Fish Oil Resin Soap Burg.	22.3	53.6
Alum Bordeaux	24.7	54.0

The results are not so clear cut in the earlier years though Alum Bordeaux has always shown a markedly higher percentage infection than the remainder and Resin Soda Burgundy a slightly higher one than the Bordeaux sprays in the first group given in the table.

The results from Gingelly Oil are encouraging but a warning must be given that the plots receiving this spray were not strictly comparable with the others as, owing to the omission of one application in 1932, they suffered a much severer attack of the disease in the latter part of 1932. In consequence, they were probably freer of old disease pustules in early 1933 and consequently in a slightly more favourable position than the other plots.

So far, the results favour Bordeaux mixture with Casein or Linseed Oil or perhaps some other vegetable oil such as Gingelly, but it must be admitted that the absence of an adhesive does not seem to result in a very great reduction of effectiveness. Even in a year of severe disease, Bordeaux without an adhesive has done very well.

It may be pointed out here that though the term "adhesive" has been used in this discussion and in previous discussions of the subject, the use of this term does not serve to define the actual behaviour of the addition made to the spray mixture. It is probable that the action may be the improvement of the spreading powers of the mixture as well as in improving the adhesive qualities.

Time and Strength of Spray Studies.—These studies have been carried out as in previous years and the results are given in the accompanying table. As can be seen, this area did not suffer as severely as the area under different spray mixtures and the leaf retention is much the same as in previous years.

TABLE IV.
Leaf Amount and Percentage Infection in Time and Strength of Spray Plots.

Treatment	September 1933		February 1934	
	Leaf Amount	Percentage Infection	Leaf Amount	Percentage Infection
Control I ...	2.40±.15	42.3	3.02±.14	41.1
1 per cent. May and September ...	4.06±.21	43.2	3.83±.16	26.3
Control II ...	2.92±.17	58.9	2.54±.13	39.5
1 per cent. May only...	6.01±.21	46.1	2.63±.14	33.6
Control III ...	3.30±.20	51.0	2.40±.13	35.0
.5 per cent. May and September...	6.36±.25	53.1	3.31±.13	32.6
Control IV ...	3.19±.17	53.1	2.32±.11	42.3
.5 May only ...	6.25±.27	57.7	2.76±.14	25.5
Control V ...	2.95±.19	43.9	3.17±.14	39.0
1 per cent. Sept. only...	2.81±.20	37.3	3.95±.16	21.5
Control VI ...	2.84±.19	49.6	2.89±.12	28.3
.5 per cent Sept. only...	2.97±.20	50.7	3.48±.14	27.4
Control VII ...	3.23±.22	53.2	2.63±.13	35.6

On the whole, the results resemble very closely those of previous years, though the area receiving the one per cent. spray in both May and September is poorer than would have been expected. This is probably due to the uneven intensity of the disease, which is indicated also by the rise in the leaf amount in the Control plots from the first to the third and fourth at the September observations. After making allowance for this, there is no real difference in any of the plots between the two strengths of spray and thus, results confirm previous work.

The value of the second spray is well illustrated in this year's data by the figures for leaf retention obtained at the end of February. The areas receiving a spray in May only show leaf amounts of 2.65 and 2.76, while those receiving sprays in May and September give 3.83 and 3.31, differences which are definitely significant. At the same time, the areas sprayed only in September show a bigger retention of leaf than the Controls.

The course of results in this experiment has been very regular for the whole period and the main conclusions as to the time and strength of the spray which give best results coupled with economy are well established for areas of a type of climate similar to that of the Experiment Station.

Interest now centres more on the Control plots which give data enabling an estimate of the intensity of the disease from year to year in this area to be made. The detailed working out of these data will require several more years' observations but it is of interest to examine the results of the last two years. For ease of discussion, the mean values of leaf amount and percentage infection for all seven Control plots taken together are given in Table V.

TABLE V.
Leaf Amount and Percentage Infection in 1932-33 and 1933-34
in Unsprayed Plots.

	Leaf Amount	Percentage Infection
		Per cent
September 1932	4.48	67.8
February 1933	2.48	24.5
September 1933	2.98	50.3
February 1934	2.71	34.4

Thus, in 1933, there was very considerably less leaf on the trees in September than in 1932. The difference is slightly reduced if allowance is made for the greater amount of Die Back in 1933 but it is still quite definite. This indicates very clearly the severity of the disease in the period prior to September in 1933. There was approximately 50 per cent. more leaf present on the trees at the same date in 1932, as indicated by the observations on typical branch systems.

By February 1934, the amount of leaf was approximately the same as in 1933, indicating that the balance between leaf loss and leaf pro-

duction between October and February favoured leaf production more than the corresponding period in 1932-33. It is impossible to say whether the difference is due to less intensity of disease or to greater production of leaf in 1933-34 during these months. The probability is that, following the very severe disease in the monsoon period of 1933, the development of the disease in the latter part of the year was somewhat delayed. It was noticeable that during October the disease situation was not severe though of course the leaf amount on the trees was low. This suggestion is further supported by the higher percentage infection in February 1934 than at the corresponding period in 1933. This may be taken to indicate that the disease in the latter part of 1933 and early 1934 was later in developing leading to a relatively greater amount of leaf but a higher percentage of diseased leaf.

The utility of these analyses of results from year to year is to build up a body of evidence on the seasonal behaviour of the disease which can be related to the climate and utilized for the forecasting of the disease situation and for more accurate timing of sprays. The importance attached to correct timing of sprays in the control of fruit diseases in temperate climates is a clear indication of the value of this work. Moreover, the extensive complaints of poor results in 1933 from spraying indicate that we are still a long way from the best utilization of spraying in the control of Leaf Disease.

Both the data so far collected and general observations tend to indicate that the weather conditions between January and the beginning of the monsoon are of the greatest importance in determining the severity likely to be attained by Leaf Disease in the latter half of the year. This conclusion was first suggested in 1931 as a result of detailed observations and the work done since amply confirms this view. Further, the amount of diseased leaf carried into the dry season is a second factor of great importance.

FLOWER AND FRUIT STUDIES.

Crop Losses during Development.—The observations on the crop losses during development were carried out as usual during 1933. This was an especially interesting year in that blossom showers fell in February and the data were expected to throw some light on the effect of the early showers on the setting. The data obtained on this question are given in Table VI, together with the similar data for the two previous years.

TABLE VI.
Loss of Developing Fruit during Development.

	1931		1932		1933	
		Per cent.		Per cent.		Per cent.
Original Flower Bud ...	9,031	...	5,379	...	6,768	...
Loss 1. First 4 weeks ...	1,850	20.5	1,411	26.2	1,823	26.9
Loss 2. 5th-11th week ...	3,403	38.3	1,501	27.9	1,801	26.6
Loss 3. 11th week to crop	381	4.2	241	4.5	533	7.9
Crop harvested ...	3,397	37.6	2,226	41.4	2,611	38.6

The data have been divided into three groups, comprising the first four weeks, the fifth to eleventh weeks and the remainder of the developing period. These groups were determined in 1931, when it was found that until the fourth week it was impossible to be sure whether all the fruit initials had set, but by the fifth week, the set fruit could be differentiated by their size from unset fruit initials which sometimes persist until the end of the year. The second period was defined by the completion of the very marked loss which occurs roughly about the eleventh week. It is distinguished by the falling of a number of partly swollen fruit which otherwise appear healthy externally. These time groupings have been adhered to as it has not yet been possible to carry out the detailed examination of the records week by week.

The main points of interest in 1933 are the similar final percentage set to that obtained in previous years and the rather higher loss in the latter part of the year. The early showers do not seem to have affected the amount of fruit set or the times at which the main losses occurred, though it is admitted that the grouping employed is a very broad one and might well conceal small variations in time of loss. The slightly greater loss in the latter part of the year is probably to be attributed to disease playing a bigger part than usual in causing leaf fall and die back. Of the hundred cropping shoots under observation, 34 had shown symptoms of dying back from the tips in 1933, while in 1932, only one out of a hundred such shoots showed similar symptoms. The surprising fact is that the later loss was not much larger.

It must be remembered that though this loss is only a relatively small percentage of the original bud, it is a much larger proportion of the final crop. The actual loss appears greater when it is realized that the loss in the latter part of the year was twice as great in 1933 as it was in 1932, and in the latter year this loss was equivalent to 10 per cent. of the crop harvested.

The results indicate that on the whole the percentage of the blossom forming ripe fruit does not vary greatly from year to year and that the greater part of the loss occurs in the first three months after blossom. As far as the 1933 evidence is concerned, a blossom shower as early as the end of February sets as well as one in early April. It must be remembered, however, that in 1933 the February rains were not followed by any extended dry period as is frequently the case with early blossom showers.

On the whole, the early losses are probably unavoidable and are to be attributed to failure to fertilise and to competition for food materials. It is to be noted that the second period of loss indicated above coincides with the period when the fruit is increasing most rapidly in size.

Examination of the Crop Picked.—The crop harvested from the branches under observation was examined as in previous years and the data analysed. The results are given in Table VII.

TABLE VII.

Analysis of Fruit Picked in Crop Development Observations.

	1931	1932	1933
Total Fruit ...	3,397	2,226	2,611
Per cent. Peaberry ...	13.3 %	21.5 %	12.1 %
Per cent. 3 Bean Cherries...	1.0	1.0	1.0
Total Number of Beans ...	6,376	4,001	4,874
Per cent. Empty Beans ...	2.0 %	2.3 %	1.7 %
Per cent. Black Beans ...	11.9 %	0.3 %	17.0 %

It can be seen at once that 1933 was a bad Black Bean year, at least as far as the Experiment Station is concerned. Reports of it from elsewhere were also received. In other respects, the figures call for little remark; three bean cherries and empty beans seem to occur in about the same proportion each year.

A detailed examination of the climate in 1931 and 1933 remains to be made to see if there are any points of correspondence. A cursory examination of the records does not suggest any obvious feature in common. On the meagre data at present available, it is impossible to discuss the relation of Black Bean to climatic conditions. A closer study of the affected beans themselves was taken up and will be considered below.

As in 1931, samples of fruit from plots receiving different manurial treatment were cut open, and the amount of Black Bean determined. The results are given in Table VIII.

In this case, the different treatments seemed to have exerted no influence whatever on the amount of Black Bean, contrary to the indications in 1931.

TABLE VIII.

Effect of Manuring on Amount of Black Bean.

	N.	P.	K.	N.P.K.	Control
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
1931 ...	11.3	4.9	4.1	6.3	5.4
1933 ...	19.5	20.0	17.5	20.0	19.0

It must be pointed out that these figures represent the percentage of affected fruit and not percentage of affected beans as given in Table VII. Again, the samples taken were small, about 200 fruit from each plot being examined.

Laboratory Study of Black Bean and Related Problems.—Although previous work had given negative results in the search for :

parasitic organism, further work was taken up especially as the affection had many points of correspondence with the Coffee Bean Disease found in East Africa which is associated with a parasitic yeast.

The results of this work confirmed that of previous studies. In one series of 22 cultures, only four showed any development of organisms of which three were bacteria mixed with a yeast and the fourth an unidentified fungus mycelium. The yeast was not at all similar to the parasitic type. Another series of 26 cultures made in a similar way gave 16 cultures with no growth, four with *Penicillium* which was obviously a contamination, five with an unidentified fungus mycelium and one with bacteria. Further, the microscopic examination of a great deal of rotted bean material failed to reveal any signs of an organism.

At the same time, attention was paid to the anatomy of affected beans and this threw a good deal of light on the problem and confirmed the opinion that the trouble is not the consequence of any parasitic invasion.

In some respects the Black Bean seemed to differ from that described in 1931. On the whole, the rotting was not wet as in that year, when affected beans seemed to contain a soft brown material in place of the hard white endosperm tissue. In 1933, the endosperm tissue was much reduced in volume and composed of collapsed thin walled cells which were empty of contents instead of being thick walled as in normal beans. The split in which the young embryo lies was large and empty except for the embryo which was usually quite normal in appearance. The whole bean was shrunken away from the parchment and into the spaces, curious swollen cells protruding from the silver skin were found. In the course of cultural work in which pieces of affected bean were placed on agar, these cells were found to proliferate and give rise to quite a quantity of gelatinous cells, visible as a glistening velvety looking tissue. These cells were not present in every case examined but they were met with quite frequently.

Further, immediately underlying the silver skin a layer of tissue composed of thin walled cells intervened before reaching the large collapsed cells of the decayed endosperm. The large swollen cells noted above appeared to arise from this and force their way through the silver skin.

Attention was directed at the same time to spotted beans, of which large numbers were present in the crop of 1933. An examination of a large number of these led to the conclusion that the spotting was of the same nature as the Black Bean as all stages between a complete Black Bean and a mere spot on the surface of the bean could be found. Accordingly more attention was paid to spotted beans in the later work as likely to throw more light on the origin of the trouble than beans in which the changes had been completed.

In the case of a slightly spotted bean, the chief characteristics were the presence of a definite tissue of small cells lying under the silver skin over the area of the spot, a layer of brown disorganized tissue in the endosperm, surrounded by more or less normal endosperm cells, which appear, however, to contain more cell contents than are present in cells further removed from the spot. In more severely attacked beans, the brown discoloured and disorganized tissue becomes a layer in the endosperm, bounded on the inside by almost normal cells and on the outside

by large collapsed empty, thin walled cells. In completely decayed beans this brown layer lines the embryonic cavity.

The spots are usually on the outer surface of the beans but not always and it sometimes happens that a spot on the outer surface has a spot on the inner fold of the bean immediately beneath. Once or twice, an apparently quite healthy bean has shown a small brown spot inside the fold when it was dissected; this is apparently not frequent, though of course it might frequently be missed, even when the bean is cut open.

Finally, in relatively small spots, the brown disorganized tissues can be seen as a mass of material apparently forcing its way between the normal endosperm cells, but the endosperm cells are so arranged with respect to the disorganized tissue that it is evident that they were formed after a focus of some activity had arisen in the place occupied by the disorganized tissue. This seems to be a point of the first importance, as timing the date of origin of the affection.

The anatomical studies thus led to the conclusion that Black Bean and spotted beans were of the same nature. The question then presented itself as to whether the latter was a stage in the development of the former or whether they represent a difference in the degree of affection. In other words, were spots developing continuously to involve more and more bean tissue or were they stationary at the time of crop, and a spotted bean unable to develop into a completely affected bean? This could not be examined directly but an attempt was made to see if any increase in size could be observed if affected beans were kept in a moist condition. A number of spotted beans in the parchment were surface sterilized and placed in tubes of sterile distilled water, after the area of the spots had been determined. At weekly intervals for five weeks a number of beans were taken and again measured. In no case was any increase in size noted as far as that could be determined by superficial measurement. This result suggests, though it is not conclusive, that the spots are not developing in ripe fruit.

A great deal of cultural work was done with spotted beans and at first very confusing results were obtained. Cultures made from parchment containing spotted beans which was collected from the drying table always gave growth in culture in which one or two species of yeast predominated. Further work showed, however, that identical cultures were obtained from similar parchment which had no spots, indicating that these organisms had no relation to the spotting. It was then found that parchment collected in the field and cleaned chemically gave no growth in culture, and consequently it was concluded that organisms penetrate inside the parchment during fermentation. These results will be further considered below.

In view of the cultural results with unspotted beans, it was clear that the spotting was not due to any of the organisms found in the earlier cultural work.

Finally tests were made on the ability of spotted beans to germinate. In these tests, spotted beans gave from 76 per cent to 86 per cent germination and even beans in which quite half the bean was blackened gave 30 per cent germination.

A full discussion of the significance of this work must await a further publication as it requires a preliminary account of the anatomy

of the coffee bean which would be out of place in this report. The main conclusions which the work provides are as follows:—

(1) *Black Bean* and spotted beans are of the same essential nature and are accompanied by definite anatomical features.

(2) The trouble is dated by the fact that the arrangement of normal endosperm cells around a spot indicates that a focus of activity of some sort existed before the final endosperm cells were laid down. This occurs sometime about early August.

(3) The trouble is almost certainly a nutritive abnormality. The persistence of the small celled layer between the silver skin and the endosperm and the tendency of this layer to proliferate is a support to this view. Early workers on coffee bean anatomy designated this layer, the nutritive layer, and noted that it normally disappeared at maturity.

(4) The trouble is not caused by a parasitic organism. This is shown by the absence of results from the cultural work and is further supported by the germinability of spotted beans and the stability of the spots once the endosperm is formed.

While it is still not possible to designate the actual cause of this trouble or the conditions which give rise to it, the year has shown substantial progress in the study of the subject. The physiological nature of the affection is now firmly established and the time of origin is clearly indicated.

The Fermentation of Coffee.—As has already been briefly mentioned, the study of spotted bean led to the attempt being made to obtain cultures from parchment which had been fermented and washed. With the most careful sterilization of the outside of the parchment, cultures taken under aseptic conditions from the interior of the parchment—usually in the form of scrapings or small fragments of the bean—gave very regular cultures of a group of organisms, the principal members of which were yeasts. Parallel cultures carried out in exactly the same way but taken from parchment collected directly from the field and cleaned chemically remained sterile. It was also proved that chemical cleaning did not interfere with organisms if present inside the parchment.

These results indicate clearly that during the normal process of fermentation, organisms penetrate into the space between the bean and the parchment. This penetration must occur through the cleft on the flat side of the parchment as it is only here that a break occurs in the continuity of the parchment. The number of organisms found are relatively few in variety, the principal one being a yeast. There are also some bacteria and one or two other organisms not yet identified but which suggests the genus, *Endomyces*.

Similar organisms were regularly recovered from the first washing water. Further investigation revealed that coffee dried ready for transport to the coast also gave positive results when cultures were made from it. The ordinary degree of drying before transport to the coast is therefore not sufficient to destroy these organisms.

Work this year could not proceed further than the establishment of the presence of the organisms. The results open a wide field of investigation as the presence of yeasts and bacteria within the parchment raises the part played by fermentation in the preparation of coffee to a more important level than the mere removal of the "saccharine

matter" after pulping. Further work on the question is planned for the next crop season.

Nematode Worms and Death of Supplies.—The Assistant Scientific Officer has been concerned almost exclusively with investigations on this problem and on developing methods of studying the Nematode worms which the work done in 1932 indicated as the most likely cause of the failure of supplies. During the period he was stationed at Balehonnur, work was concentrated on the study of methods of isolating worms from the soil and some experiments were attempted to study the effect of mutilating roots on the regeneration of new root tips. Finally some inoculation experiments were made on plants planted in root inspection boxes. During this period some manuring experiments were started in Coorg along the lines of experiments tried in Java to see if forcing the plants to grow by heavy manuring at planting would give them a better start and enable them to avoid the worst effects of Nematode attack.

On his return to Coorg, work on the Nematode fauna of the soil and methods of extracting worms from soil was continued and fresh inoculation experiments started. Studies of the possibilities of a hot water treatment of supplies were also undertaken.

General Observations.—The year saw the discovery of the presence of parasitic eelworms on coffee in a second area. They were found associated with the death of supplies in an estate on the lower slopes of the Bababudins. The distribution as at present known must be regarded as peculiar, comprising as it does an extensive area in South Coorg, a couple of isolated areas in North Coorg and an area in the Bababudins. The first and last areas have one factor in common in that both areas were bamboo country or verge on bamboo country. Enquiries made at the Imperial Bureau of Agricultural Parasitology revealed that recent systematic work shows that morphologically, the coffee eelworm is similar to a species with a wide range of host plants of which species of Bamboo provide several hosts. Work in Java tended to show, however, that the strain on bamboo was different from that on coffee as cross inoculations were unsuccessful. Whether the strain arose from a bamboo attacking strain must remain unproven.

Examination of soil in the dry weather shows that the worms have a marked seasonal fluctuation, and that during this part of the year it is extremely difficult to find worms in areas which during the rainy season show large numbers. Work during the latter part of the year was severely handicapped by lack of material. It has not yet been possible to decide how the worms survive the dry season. The methods of isolation in use only permit of the detection of living and active worms in the soil.

Inoculation Experiments.—So far no completely satisfactory inoculation experiments have been obtained. In the case of one plant inoculated in an observation box in which pieces of infected tissue were placed in contact with a healthy rootlet, infection of the rootlet was obtained and the presence of adult worms in the cortex was readily detected. The plant did not, however, develop typical symptoms during the course of an experiment lasting several months. Further work on this question is in progress.

Isolation of Worms from the Soil.—I am indebted to Dr. Goodey of the Imperial Bureau of Animal Parasitology for suggesting a modification of the funnel method, which we have used for isolating worms from roots, for isolating them from soil. This method has been found to work quite well and has been adopted for work on the soil population of worms. At the end of the year the Assistant was engaged on studying the possibility of devising a rough quantitative method to get at the comparative numbers of worms in the soil, both in different soils and at different times of the year. The results, while as yet incomplete, offer some promise.

From preliminary experiments it appears that in infected soils, roughly 50 per cent. of the worms present are of the parasitic type.

Manuring Treatment of Supplies in Eelworm Areas.—In view of the promising results obtained in Java by heavy manuring of supplies, experiments on this question were started in July 1933. The plants to be planted were subjected to a hot water treatment similar to that suggested in Java but unfortunately it proved to be too drastic. The experiments were restarted in September. The following manures were applied at planting—Sulphate of Ammonia, Superphosphate, Potash, Niciphos, Niciphos + Potash and a mixture commonly used in South Coorg for manuring, containing tobacco waste. Each of the experiments consisted of two plots to each treatment each containing ten nursery plants carefully selected for uniformity which were measured after planting. Measurements were taken at monthly intervals to January after which it was decided that such frequent measurements were not necessary. A full report of the results must await until next year, but so far no clear differences are appreciable.

The idea behind the experiment is two-fold. The Dutch workers found lower percentages of the three mineral plant foods in eelworm attacked plants and their idea was to try and increase the intake of such materials in the hope that plants might become more resistant. However, the lower percentage of minerals may really be an effect of the reduction of root absorbing area rather than a cause of susceptibility. At the same time, it was hoped that a plant well supplied with readily absorbable mineral food might make such strong and rapid growth that it could throw off the worst effects of the attack.

It is proposed to continue and extend this work during the coming year.

Hot Water Treatment of Supplies.—In order to prevent the conveyance of the pest from nurseries to the field, the Dutch workers recommended the use of hot water sterilization of seedlings to be planted out. They recommended, working with Robusta, that the plants be immersed in hot water at a temperature of 49°C. (121°F.) for ten minutes. This time and temperature was found too high for the Arabica plants with which we are working. A study was made of various times and temperatures to see what were the limits for Arabica seedlings of the type normally used for planting out. The following table gives the data obtained.

TABLE IX.

Hot Water Sterilization and its Effects on Arabica Seedlings.

Expt.	Temperature.	°C.	Time	Result
	Start	End.	mins.	
1	60°	59.5°	3	Plants killed.
2	60°	59°	4	Do.
3	55°	54.5°	5	Do.
4	50°	49°	6	Do.
5	50°	49°	8	Do.
6	45°	44°	10	Do.
7	45°	44°	15	7/10 survived.
8	41°	40°	15	Plants killed.
9	41°	39.5°	20	8/10 survived.
10	41°	40°	25	Plants killed.

Ten plants were subjected to each treatment and then planted out in beds in a small nursery and their behaviour recorded. There are certain inconsistencies in the results but it seems clear that the time and temperature recommended by the Dutch workers is too drastic a treatment for Arabica plants under the conditions prevailing in South Coorg.

In any case the treatment is unlikely to be of any great value as observations show that most of the soils where the eelworm problem has been severe are already infected. Consequently, the study was not continued to a consideration of the thermal death point of the worms.

Regeneration of damaged Root Tips.—Some preliminary experiments were made on the effect of cutting off the tips of young rootlets of plants planted in boxes with a glass side for observation purposes. Rootlets which had grown out and come in contact with the glass were cut and their fate observed. In only one case was there any sign of the production of a new rootlet in close proximity to the damaged tip. In nearly every case, the damaged root slowly died back for a considerable distance and any new roots which were produced were at points removed from the point of damage. While these experiments were only of a preliminary nature, they do suggest that root plants whose finer roots are inevitably damaged during transplanting bear a considerable amount of root which will die back while the fresh roots are developing. It seems highly probable that these damaged roots offer a very suitable foothold for invading organisms such as the eelworms and add additional support to the suggestion that where eelworms are severe, it would be preferable to reduce the shock of transplanting as much as possible by the use of ball or basket plants.

During the Scientific Officer's home leave the Assistant carried on routine work at the Experiment Station and was responsible for the collection of the data on fruit set and on the spraying experiments, the maintenance of stock cultures of Leaf Disease and in general co-operation with the staff of the Experiment Station.

General Remarks.—1933 will long be remembered as an extremely unfavourable year for coffee in most districts. Blossom showers fell

very generally towards the end of February and though the worst effects of such early showers were mitigated by the very regular rainfall from that time until the monsoon, this high hot weather rainfall had other serious effects. Diseases started early as a consequence of the showery weather of the months up to the monsoon, and leaf fall from Leaf Disease was noted as early as June. The S. W. monsoon was very wet and Black Rot took a considerable toll. In addition, in Mysore, a very severe attack of Die Back occurred and enormous amounts of young shoot and cropping wood was destroyed. As was noted earlier in the report, unsprayed areas at the Experiment Station showed as much as 23 per cent. of the new wood destroyed by this disease by the end of September. The loss from the same cause of cropping shoots resulted in losses in crop which fell prematurely or remained and shrivelled up.

The S. W. monsoon continued longer than usual and October and November were also very wet and though in October trees seemed to be fairly free of Leaf Disease, they were carrying very much less leaf than usual, at least in sprayed areas. The later rains started a second attack of Leaf Disease and the trees entered the dry weather with rather more diseased leaf than usual. This is illustrated by data given in Table IV where the average percentage infection in the controls in February was about 40 per cent compared with about 25 per cent at the same time in 1933.

The result in terms of prospects for the 1934-35 season was a considerable reduction in bearing area and a poor development of bud. On the whole crops in 1933-34 were not large so that the damage was not as severe as it would have been if the plants had been attempting to carry a big crop.

Only a very few estates in Mysore had received any blossom showers before the end of the year and these were small in amount.

The year was notable for a very general experience of poorer results from spraying than have been obtained in previous years. The relative failure seems almost certainly to have been due to the early rains which resulted in an early start for Leaf Disease and in a rather slower growth of the new leaf and wood. Consequently, early spraying failed to cover a sufficient proportion of the new wood and late spraying failed to prevent development of quite a considerable amount of disease. It seems clear that years such as 1933 demand some modifications in the spraying programme and a recognition that early showers are formidable as a factor favouring early development of disease and greater difficulty in spraying efficiently.

The crop of 1933 contained a considerable amount of black and spotted beans but although conditions were so generally unfavourable, it is impossible to define the actual environmental conditions responsible for this serious defect in the harvested crop.

Diseases.—No new diseases were received for report during the year. A report of spray damage was investigated by the Assistant but no satisfactory explanation of the damage was arrived at. Spray damage is not unknown in other crops and is frequently associated with very wet conditions during spraying and it is along such lines that an explanation may perhaps be sought. It seems clear that Burgundy mixture, which was used in the damaged area, is a more dangerous spray than Bordeaux for coffee. Similar results have frequently been reported for other fruit

crops. Other reports also show that such damage is very capricious in its appearance so that a sudden appearance on a small area may not necessarily be due to defects in the materials but to the existence of a certain complex of environmental factors which happens to favour spray injury.

Pests.—No new insect pests were received for report during the year. The extension of areas under Robusta coffee is beginning to show that Shot Hole Borer, *Xyleborus* spp. is by far the most serious enemy that this plant has to contend with. Specific control measures have not yet been found and the only method of mitigating the damage is to encourage the formation of secondary growth as early as possible. Loss of secondaries is serious enough, but it is not as serious as the destruction of primaries which are irreplaceable. Bug pests on aerial parts of plants were not serious in 1933 as they are not encouraged by the wet conditions characteristic of the year.

Correspondence and Publications.—Two hundred and thirteen letters were despatched during the year. Enquiries show a slight falling off from previous years; as in previous years most enquiries deal with spraying and related questions.

No new publications were prepared during the year, but both the bulletin on spraying prepared in co-operation with Mr. M. J. Narasimhan, Mycologist and Mr. K. H. Srinivasan, Assistant Director of Agriculture, Mysore State and the bulletin on Nematode Worms were actually published during this year. A short note on the disease situation in the monsoon of 1933 was prepared in co-operation with Mr. M. J. Narasimhan and Mr. K. H. Srinivasan and this was published both as a Circular of the Coffee Experiment Station and in the *Planters' Chronicle*.

During the course of long leave, the Scientific Officer visited the Imperial Mycological Institute, The Imperial Entomological Institute, the Imperial Bureau of Agricultural Parasitology, and the offices of Messrs. Rouse & Co., Messrs. Leslie and Anderson, Messrs. Peirce Leslie, The Overseas Potash Supply Co., and Messrs. Drake and Fletcher, in connection with enquiries bearing on aspects of the work on coffee. It is a pleasure to acknowledge the assistance given me by the Officers and representatives of these organizations and firms.

Acknowledgments.—It gives me great pleasure to express once again my very great appreciation of the continued cordial advice and assistance which has been accorded me at all times by Dr. Coleman and his staff both at Bangalore and at the Coffee Experiment Station. It is with feelings of great regret that it was learnt at the end of the year that Dr. Coleman's health necessitated his retirement. The scientific work on coffee reported in this and all previous reports owes a tremendous debt of gratitude to his inspiration and advice.

The work of the Assistant has been very satisfactory during the year, but has unfortunately suffered a certain amount of interruption in the latter part of the year from malaria. Work at Sidapur was also somewhat handicapped by absence of Nematode material in the dry weather but substantial progress in the development of technical methods of investigation has been made.

Finally, I have great pleasure in recording my thanks to the many planters who have assisted me in many ways during the past year.

W. WILSON MAYNE,
Coffee Scientific Officer.

RUBBER SCIENTIFIC DEPARTMENT.

Annual Report 1933-34

Tapping at the Station was stopped on 24th April 1933, and since then no work other than essential maintenance work has been carried out.

Staff.—Mr. A. Krishnapillai the field writer has been retained on the Station on a small salary as watcher.

I have visited the Station at least once a month and have issued monthly reports.

Buildings.—The Staff house mentioned in my last report had half of its roof removed and new rafters put in where necessary. The whole of the wood was given a dressing of timber protective before replacing the tiles. Other minor repairs were carried out where they were required. All the buildings have been kept regularly aired and swept and show no further deterioration. The batteries of the lighting plant have received a freshening charge once a month and are in fair order. The engine driving the dynamo has given a certain amount of trouble during the year which has necessitated special visits to put it right. All tools and machinery have been kept well greased. Laboratory apparatus is in good order and receives regular attention.

Field Work.—Weeding was confined to digging out jungle cheddy and the removal of obnoxious weeds in the older rubber. In the young clearings circle weeding was also done. Surroundings of buildings were kept weeded.

Girth measurements were taken in March as usual and entered in the records. Plans were prepared showing the origin of each tree and its position in each clearing and multiplication bed, which it was hoped would be of use when the Station re-opens.

Girth measurement marks and tree census numbers were renewed in far as usual.

Pests and Diseases.—No spraying was done during this year.

Secondary Leaf Fall.—The amount of leaf lost as a result of this was estimated at 40% in the older rubber, 25% in the 1927 and 30% in the 1928 clearings, while the 1931 clearing lost practically nothing at all. The season was a fairly severe one locally for leaf fall. In the old rubber it was noteworthy that the trees of the following clones lost practically no leaf;

AT	=	Aneikolam
BB	=	Aneikolam
BK	=	Mooply Valley
AA	=	Shalicy

There was a sharp outbreak of Pink Disease (*Corticium Salmonicolar*) during the months of September/November when 166 cases received attention. Old disease wounds were freshly tarred before the Monsoon, broke,

RAINFALL WAS:—

April	..	9.61 ins.	7.38 ins.
May	..	30.51 "	34.43 "
June	..	18.61 "	35.16 "
July	..	32.21 "	28.01 "
August	..	21.71 "	25.93 "
September	..	15.55 "	31.38 "
October	..	28.31 "	21.02 "
November	..	15.17 "	11.05 "
December	..	2.96 "	4.45 "
January	..	nil	5.85 "
February	..	1.49 "	nil
March	..	5.04 "	4.40 "
Total	..	<u>181.17 ins.</u>	<u>209.06 ins.</u>

General.—Bark renewal on the tapped panels has been fairly good. Growth has been about average for the age of the various clearings. The Station is looking well and is free from Disease.

(Sd.) H. B. MACPHERSON,
Supervisor.

ACCOUNTS 1933-34

THE UNITED PLANTERS' ASSOCIATION

HEAD

Income and Expenditure Account for the

EXPENDITURE.	Rs.	A.	P.
To Secretary's Salary	9,960	0	0
„ Assistant Secretary's Salary	9,910	0	0
„ Office Establishment	4,850	13	0
„ Rent	5,877	14	0
„ Postages and Telegrams	760	12	0
„ Printing and Stationery	804	11	10
„ Telephone and Fans	354	7	0
„ Periodicals & Library	28	10	0
„ Bank Charges	228	6	6
„ Incidentals	362	14	6
„ Meetings	3,660	13	1
„ Audit Fees	500	0	0
„ Legal Charges	63	8	0
„ Insurance	237	8	0
„ Depreciation on Furniture	130	0	0
„ Passage Money Fund	476	5	0
„ European Employees' Provident Fund Contri- butions	1,806	0	0
„ Indian Employees' Provident Fund Contri- butions	402	5	0
„ Mr. H. Waddington's Pension	115	5	4
„ Contribution to Employers' Federation of India	600	0	0
„ Medical Fees	817	4	0
„ Address to the Viceroy	296	8	0
„ Removal of Office to Coonoor	1,484	0	6
„ Glenview Expenditure	185	2	0
	43,911	3	9
„ Labour Department Grant	39,000	0	0
„ Political Department Contribution — Madras... ..	12,000	0	0
„ Political Department Contribution — Other Legislatures	1,027	5	2
Total Rs....	95,938	8	11

OF SOUTHERN INDIA (INCORPORATED.)

OFFICE.

year ended 31st March, 1934.

INCOME	Rs.	A.	P.	Rs.	A.	P.
BY SUBSCRIPTIONS.—						
Firms & Companies ...	3,450	0	0			
DISTRICT ASSOCIATIONS.—						
Anamallai P. A. ...	13,253	11	2			
Central Travancore P. A. ...	10,080	6	8			
Coorg P. A. ...	5,055	10	6			
Kanan Devan P. A. ...	15,976	12	2			
Mundakayam P. A. ...	2,951	8	11			
Mysore P. A. ...	7,033	14	0			
Nelliampathy P. A. ...	1,351	14	3			
Nilgiri P. A. ...	5,499	2	6			
Nilgiri-Wynaad P. A. ...	7,010	10	11			
Shevaroy P. A. ...	1,583	4	10			
South Travancore P. A. ...	6,546	6	6			
West Coast P. A.	1,782	4	6			
Wynaad P. A. ...	4,688	0	0	86,263	10	11
Interest ...				3,470	9	4
Sundry Receipts ...				3,904	5	9
Planters' Chronicle as per Separate Statement ...				812	3	7
Excess of Expenditure over Income transferred to Head Office Department Fund ...				1,487	11	4
Total Rs. ...				95,938	8	11

Income and Expenditure Account for the

EXPENDITURE	Rs.	A.	P.
To Scientific Officer's Salary	14,588	0	0
„ Assistant Scientific Officer's Salary	9,405	0	0
„ Entomologist's Salary	1,800	0	0
„ Mycologist's Salary	1,800	0	0
„ Indian Staff	1,364	4	0
„ Allowances	1,822	3	0
„ European Provident Fund Contributions	2,398	8	0
„ Indian Provident Fund Contributions	295	3	0
„ Passage Money Fund	1,280	0	0
„ Share of Head Office Expenditure	1,024	7	3
„ Stationery, Postages and Telegrams	463	1	5
„ Bulletins, Library, etc	353	10	4
„ Laboratory Work	2,058	4	3
„ Field Works and Tools	3,906	7	9
„ Upkeep—Roads, Buildings and Lands	860	3	1
„ Travelling and Transport	1,633	11	9
„ Assessments and Rents	206	2	0
„ Lighting and Plant	906	11	11
„ Medical Expenses and Subscriptions	313	3	6
„ Insurance	267	14	0
„ Incidentals	62	6	6
„ Depreciation	6,450	0	0
„ Meetings	181	8	0
„ Excess of Income over Expenditure transferred to Tea Scientific Department Fund	6,425	15	7
Total Rs.	59,846	13	4

SCIENTIFIC DEPARTMENT.

year ended 31st March, 1934.

INCOME	Rs.		Rs.	
	A.	P.	A.	P.
By Share of Madras Government				
Grant			20,440	0 0
„ SUNDRY RECEIPTS.				
General	52	12 8		
Sale of Quota.	533	4 0	586	0 8
TEA CESS COLLECTED.				
Anamallai P. A.	7,833	5 8		
Central Travancore P. A.	6,703	14 6		
Coorg P. A.	113	2 0		
Kanan Devan P. A.	10,415	15 3		
Mundakayam P. A.	518	12 0		
Mysore P. A.	860	0 0		
Nelliampathy P. A.	202	3 0		
Nilgiri P. A.	3,129	5 3		
Nilgiri-Wynaad P. A.	3,876	13 6		
South Travancore P. A.	2,094	13 6		
Wynaad P. A.	3,072	8 0	38,820	12 8
Total Rs.			59,846	13 4

COFFEE

Income and Expenditure Account for

EXPENDITURE	Rs.	A.	P.
To Scientific Officer's Salary	8,910	0	0
.. Assistant Scientific Officer's Salary	2,205	0	0
.. Scientific Officer's Servant Allowances	240	0	0
.. European Employees' Provident Fund Contribution	891	0	0
.. Indian Employees' Provident Fund Contribution	131	4	0
.. Passage Money Fund	192	0	0
.. Share of Head Office Expenditure	287	0	0
.. Meetings	105	0	0
.. Postages and Incidentals	33	4	6
.. Scientific Officer's Travelling Allowance	402	8	0
.. Assistant Scientific Officer's Travelling Allowance	380	5	6
.. Rent	210	0	0
.. Caretaker's Salary	180	0	0
.. Periodicals	41	14	0
.. Laboratory Expenses	499	0	8
Total Rs. ...	14,708	4	8

RUBBER

Income and Expenditure Account for

EXPENDITURE	Rs.	A.	P.
To Supervisor's Salary	600	0	0
.. Indian Staff Salary	302	0	0
.. Share of Head Office Expenditure	68	0	0
.. Stationery, Postage and Printing	82	14	9
.. Field Experiments	39	7	0
.. Upkeep, of Roads, Buildings, etc	83	6	4
.. Motor Mileage	19	2	0
.. Insurance and Assessments	114	12	0
.. Incidentals	4	7	3
.. Depreciation	2,640	0	0
Total Rs. ...	3,854	1	4

SCIENTIFIC DEPARTMENT.

the year ended 31st March, 1934.

INCOME	Rs. A. P.			Rs. A. P.		
	Rs.	A.	P.	Rs.	A.	P.
By COFFEE CESS COLLECTED.--						
Anamallai P. A.	257	3	9			
Coorg P. A.	1,772	10	0			
Kanan Devan P. A.	70	10	0			
Nelliampathy P. A.	289	9	0			
Nilgiri P. A.	291	10	8			
Nilgiri-Wynaad P. A.	456	5	10			
Shevaroy P. A.	575	12	0			
Wynaad P. A.	21	4	0			
				3,735	1	3
.. Share of Madras Government grant				7,560	0	0
.. Coorg Government grant				2,350	0	0
.. Excess of Expenditure over Income transferred to Coffee Scientific Department Fund				1,063	3	5
Total Rs.				14,708	4	8

SCIENTIFIC DEPARTMENT.

the year ended 31st March, 1934.

INCOME	Rs. A. P.		
	Rs.	A.	P.
By Excess of Expenditure over Income transferred to Rubber Scientific Department Fund	3,954	1	4
Total Rs.	3,954	1	4

DEPARTMENT.

year ended 31st March 1934.

INCOME	Rs.	A.	P.	Rs.	A.	P.
By Subscriptions.—						
Anamallai P.A.	34,145	10	5			
C. Travancore P. A.	27,904	1	11			
Coorg P. A.	8,531	8	6			
Kanan Devan P. A.	50,430	12	7			
Mysore P. A.	8,843	10	7			
Nelliampathy P. A.	2,336	9	8			
Nilgiri P. A.	1,506	0	0			
Nilgiri-Wynaad P. A.	9,186	6	5			
Shevaroy P. A.	497	2	10			
Wynaad P. A.	8,143	8	1			
				1,51,525	7	0
.. Sundry Receipts				4,631	4	11
.. Head Office Grant				39,000	0	0
.. Excess of Expenditure over Income transferred to Labour Department Fund				2,262	11	2
Total Rs				1,97,419	7	1

THE UNITED PLANTERS' ASSOCIATION

Balance Sheet

FUNDS AND LIABILITIES.	Rs.	A.	P.	Rs.	A.	P.
ACCUMULATED FUNDS.—						
General Reserve	2,24,215	1	11			
Head Office Reserve	60,000	0	0			
Labour Reserve	19,026	0	0			
<i>Tea Reserve.—</i>						
As per last Balance Sheet 53,702 2 8						
Add Interest during the year 2,312 0 0	56,014	2	8			
<i>Coffee Reserve.—</i>						
As per last Balance Sheet 53,048 2 2						
Add Interest during the year 2,217 0 0						
55,265 2 2						
Less Amount transferred to Coffee Scientific Department Fund 1,063 3 5	54,201	14	9			
<i>Rubber Reserve.—</i>						
As per last Balance Sheet 21,001 9 0						
Add Interest during the year 675 0 0						
21,676 0 0						
Less Amount transferred to Rubber Scientific Department Fund 9,566 10 1	12,109	5	11	4,25,566	9	3
SPORTS FUND. —						
As per last Balance Sheet ...	1,247	12	8			
Less Excess of Expenditure over Income for the year	312	9	0	935	3	8
FURLOUGH AND PASSAGE FUND.—						
As per last Balance Sheet ...	12,223	13	4			
Less Excess of Expenditure over Allocations for the year	6,956	11	0	5,267	2	4

OF SOUTHERN INDIA (INCORPORATED.)

as at 31st March, 1934.

PROPERTY AND ASSETS.	Rs.	A.	P.	Rs.	A.	P.
FIXED CAPITAL EXPENDITURE....						
<i>Land at Cost—Labour Department.</i>						
Coimbatore	8,075	0	0			
Palamcottah.						
As per last Balance Sheet 2,247 8 0						
Less Sales during the year 1,518 0 0	729	8	0			
Nagercoil	5,846	7	9			
Mysore	5,317	0	0	18,967	15	9
<i>Head Office.—Coonoor—</i>						
Additions during the year				5,000	0	0
<i>Buildings at Cost—Labour Dept.—</i>						
Coimbatore,						
As per last Balance Sheet ... 31,413 8 6						
Add Additions during the year 450 0 0	31,863	8	6			
Palamcottah	28,888	14	9			
Nagercoil	14,153	8	3			
Mysore	27,172	11	4			
	1,02,078	10	10			
Less Depreciation to date ...	28,973	10	10	73,105	0	0
<i>Head Office.—</i>						
Coonoor—Additions during the year				40,000	0	0
<i>Rubber Experimental Station.—</i>						
Mundakayam	53,713	15	6			
Less Depreciation to date ...	31,053	15	6	22,660	0	0
<i>Tea Experimental Station.—</i>						
Nellakottah	1,13,332	6	5			
Less Depreciation to date ...	39,622	6	5	73,710	0	0
<i>Electric Installation at Cost.—</i>						
Head Office—Additions during the year				1,316	18	6

Balance Sheet as at

FUNDS AND LIABILITIES.	Rs.	A.	P.	Rs.	A.	P.
LABOUR DEPARTMENT FUND.—						
As per last Balance Sheet ...	5,715	1	7			
Less Excess of Expenditure over Income for the year	2,262	11	2	3,452	6	5
TEA SCIENTIFIC DEPARTMENT FUND.						
As per last Balance Sheet ...	—	—	—			
Add Excess of Income over Expenditure for the year	6,425	15	7	6,425	15	7
COFFEE SCIENTIFIC DEPARTMENT FUND.—						
As per last Balance Sheet ...	—	—	—			
Add Amount transferred from Coffee Reserve ...	1,063	3	5			
	1,063	3	5			
Less Excess of Expenditure over income for the year	1,063	3	5	—	—	—
RUBBER SCIENTIFIC DEPARTMENT FUND.—						
As per last Balance Sheet ...	1,866	10	8			
Add Amount transferred from Rubber Reserve ...	9,566	10	1			
	11,433	4	9			
Less Amount withdrawn on behalf of Head Office ...	7,479	3	5			
Excess of Expenditure over Income for the year ...	3,954	1	4	11,433	4	9
ADVANCE PAYMENTS.—						
Unexpired Subscriptions—						
U. P. A. S. I. Buying Agy.	1,333	5	4			
Unexpired Subscriptions and Advance Payments of Advertisers—Planters' Chronicle ...	3,912	6	2	5,245	11	6
LIABILITIES.—						
Labour Department.—						
Audit Fee ...	2,100	0	0			
Estate Advance Deposits at Divisions ...	72,508	2	6			
Sundry Creditors ...	4,544	10	1			

31st March, 1934.—(continued)

PROPERTY AND ASSETS.	Rs.	A.	P.	Rs.	A.	P.
FURNITURE AND FITTINGS.—						
At Head Office and Divisions						
As per last Balance Sheet ...	3,945	0	0			
Add Additions during the year	8,063	4	0			
	12,008	4	0			
Less Sales during the year	3,748	4	0			
	8,260	0	0			
Less Depreciation for the year	740	0	0	7,520	0	0
LABORATORY APPARATUS.—						
At Nellakotta Tea Experimental Station ...	2,070	0	0			
Less Depreciation for the year	470	0	0	1,600	0	0
STATIONERY & CONTRACT FORMS.				619	0	3
ADVANCES.—						
Motor Car & Cycle Advances at Divisions				628	4	7
BOOK DEBTS.—						
At Head Office, Considered Good	9,192	13	10			
At Divisions—						
Considered Good 2,136 5 1						
Considered Doubtful 7,000 0 0	9,136	5	1			
Planters' Chronicle, Considered Good	741	12	11			
European Employees' Provident Fund	1,981	14	3			
Southern India Planters' Benevolent Fund	4,142	13	5	25,195	11	6
SPORTS FUND.—						
With Imperial Bank of India on Fixed Deposit				935	3	8
HEAD OFFICE DEPARTMENT FUND.—						
Excess of Expenditure over Income for the year ...	1,487	11	4			

Balance Sheet as at

FUNDS AND LIABILITIES.	Rs.	A.	P.	Rs.	A.	P.
Suspence Account	1,131	13	10			
Income-tax Account	63	1	4	80,347	11	9
<i>Planters' Chronicle.</i> —						
Due by U. P. A. S. I. on						
Current Account				557	2	0
<i>Head Office.</i> —						
Audit Fee	500	0	0			
Sundry Creditors	4,618	8	0			
Planting Directory 1934						
Account	189	9	3			
Indian Employees' Provident						
Fund	750	7	6			
Due to Staff	892	9	0			
Earthquake Relief Fund ...	1,732	8	0	8,683	9	9
Total				5,36,481	8	3

J. S. B. WALLACE,

MADRAS, 11th August 1934.

Committee Member.

Report of the Auditors to the Members of the United

We have audited the Balance Sheet of THE UNITED as at 31st March 1934, and above set forth, and have obtained all the

In our opinion such Balance Sheet is drawn up in conformity Association's affairs according to the best of our information and the and the Returns from the Divisions.

31st March, 1934—(concluded.)

PROPERTY AND ASSETS.	Rs.	A.	P.	Rs.	A.	P.
Less Balance as per last Balance Sheet ...	1,483	6	11	4	4	5
INVESTMENTS.						
Rs. 1,00,000/- 6½% 1935 Treasury Bonds ...	1,00,000	0	0			
Rs. 50,000/- 5% 1945-55 Loan ...	53,268	8	10			
Post Office Cash Certificates ...	1,104	12	0	1,54,373	4	10
INTEREST ACCRUED ON INVESTMENTS				1,531	10	0
CASH AND OTHER BALANCES :—						
With Imperial Bank of India on Current Account at Madras and Branches ...	72,466	13	2			
With Bank of Mysore Ltd. on Current Account ...	7,515	1	10			
With Bank of Mysore Ltd. on Fixed Deposit ...	991	1	0			
With Co-operative Banking Union Ltd. Srivilliputtur ...	3,971	0	7			
Cash and Stamps at Divisions and Agencies ...	22,912	15	4			
Cash at Head Office ...	457	6	10	1,08,314	6	9
Total ...				5,36,481	8	3

C. H. BROCK,
Secretary, U. P. A. S. I.

R. FOWKE,
Chairman.

Planters' Association of Southern India (Incorporated.)

PLANTERS' ASSOCIATION OF SOUTHERN INDIA (Incorporated.)
information and explanations we have required.
with the Law and exhibits a true and correct view of the state of the
explanations given to us and as shewn by the books of the Association

FRASER & ROSS,
Chartered Accountants, Registered Accountants. } Auditors.

THE UNITED PLANTERS' ASSOCIATION

HEAD OFFICE

As amended at the Annual

EXPENDITURE	Rs.	Rs.
ESTABLISHMENT :—		
Secretary		12,000
Office Establishment		8,750
Rents		3,690
OFFICE :—		
Postage and Telegrams	900	
Printing and Stationery	800	
Telephone and Lighting	400	
Periodicals and Library	250	
Bank Charges	120	
Incidentals	463	2,933
GENERAL :—		
Meetings	3,500	
Audit Fees	500	
Insurance	250	
Depreciation of Furniture and Stock	200	4,450
PASSAGE MONEY FUND		480
PROVIDENT FUNDS		1,747
EMPLOYERS' FEDERATION OF ALL INDIA		600
		34,650
Less Share of Secretarial and Clerical Staff :—		
from "Planters' Chronicle"	7,500	
„ Buying Agency	1,320	
„ D. P. A. Collection of subscriptions	180	9,000
		25,605
		15,650
SOUTH INDIAN PLANTING AND COMMERCIAL REPRESENTATION FUND, MADRAS	13,500	
INDIAN STATES PLANTING REPRESENTATION	1,500	15,000
LABOUR DEPARTMENT GRANT		41,000
		640
Balance excess of Income over Expenditure		830
Total	Rs.	82,000
		92,240

OF SOUTHERN INDIA (INCORPORATED.)

BUDGET 1934-1935.

Meeting, September 1934.

INCOME	Rs.	Rs.
SUBSCRIPTIONS :—		
Subscription from Firm Members	3,150	
Tea 128,203 acres at 0 6 6	52,082	
Coffee 46,562 acres at 0 4 6	13,096	
Rubber 41,610 acres at 0 3 6 :—		
By cash collection at 0 1 0	2,601	
From Rubber Reserve	6,502	9,103
3		1,170
Minor Products 5,440 acres at 0 6	830	78,281
		78,621
INTEREST 24% of total receipts		1,800
SUNDRY RECEIPTS		1,919
Total	Rs.	82,000
		82,540

THE UNITED PLANTERS' ASSOCIATION
LABOUR DEPARTMENT

EXPENDITURE	Rs.	Rs.
Director's Office Expenses		13,084
Coimbatore-Salem Division	54,330	
Mysore-Mangalore Division	43,420	
Palamcottah Division	39,970	
Srivilliputtur Division	32,180	
		1,69,900
Overhead Charges :—		
Passage Money Fund	2,225	
Audit Fees	2,100	
Provident Funds	8,831	13,156
Balance Excess of Income over Expenditure		3,140
Total ...		1,99,280

TEA SCIENTIFIC DEPARTMENT

EXPENDITURE	Rs.
Staff and Allowances	35,246
General Expenditure	13,849
Depreciation	5,925
Passage Money Fund	1,600
Provident Funds	3,119
	59,739
Balance Excess of Income over Expenditure ...	3,750
Total ...	63,489

OF SOUTHERN INDIA (INCORPORATED.)**BUDGET 1934-1935**

INCOME	Rs.	Rs.
Balance Brought Forward		3,452
Subscribers' Cess		
Tea 89,760 acres at Re 1-8-0	1,34,640	
Coffee 22,200 acres at 0-12-0	16,650	
Minor Products 4,100 acres at 0-6-0	1,538	1,52,828
U. P. A. S. I. Head Office Grant		41,000
Interest at 12 % and Sundry receipts		2,000
Total ...		1,99,280

BUDGET 1934-1935

INCOME	Rs.
Balance brought Forward	16,426
Tea Cess 1,28,203 acres at 0-5-0	40,063
Share of Madras Government Grant	15,330
Sundry Receipts	1,670
Total ...	63,489

THE UNITED PLANTERS' ASSOCIATION

COFFEE SCIENTIFIC DEPARTMENT

EXPENDITURE	Rs.
Staff and Allowances	14,500
General Expenditure	534
Passage Money Fund	240
Provident Funds	1,181
Total ...	16,455

RUBBER SCIENTIFIC DEPARTMENT

EXPENDITURE	Rs.
Staff	780
General Expenditure	577
Depreciation... ..	2,650
Total ...	4,000

INTEREST ACCOUNT

EXPENDITURE	Rs.
Head Office Reserve Account 24%	1,800
Labour Department Reserve Account 12%	900
Tea Reserve Account 30%	2,250
Coffee Reserve Account 26%	1,950
Rubber Reserve Account 8%	600
Total ...	7,500

COONOR,
20th September, 1934.

OF SOUTHERN INDIA. (INCORPORATED.)

BUDGET 1934-35

INCOME	Rs.	Rs.
Coffee Cess—30,442 acres at 3 as.	5,708	
16,120 acres at 1 anna.	1,007	6,715
Share of Madras Government Grant ... ..	...	5,870
Coorg Government Grant ... ..	...	2,350
Balance to be taken from Reserve ... ..	...	1,720
Total ... ..	...	16,455

BUDGET 1934-35

INCOME	Rs.
To be drawn from Reserve	4,000
Total	4,000

BUDGET 1934-35

INCOME	Rs.
Estimated Interest on Investments	7,500
Total	7,500

C. H. BROCK,
Secretary.

APPENDIX

Rules of the U. P. A. S. I. (Incorporated).

I. Each District Association shall register with the Secretary not later than 1st day of January each year details of the area on which subscriptions due to the U. P. A. S. I. are to be calculated for the ensuing year.

II. The Chairman shall be elected by ballot at the Ordinary General Meeting of the Association held each year and shall hold Office until a successor has been duly elected.

III. Should the Office of Chairman become vacant the Executive Committee shall appoint one of its members to hold office and fill the consequent vacancy in the Committee, such appointments to hold good until the next Ordinary General Meeting of the Association.

IV. In the absence of the Chairman in the case of any Banking Accounts requiring two signatures those of the Secretary and any member of the Executive Committee shall suffice.

V. The election of the Executive Committee shall be by ballot, representatives of each industry to be elected by the votes of the area under the corresponding products only.

VI. No subject other than those on the published Agenda shall be discussed except with the consent of the meeting. No original proposition shall be made unless thirty days' notice in the case of an Ordinary Meeting and fourteen days' notice in the case of a General Committee Meeting, stating objects and reasons, has been given to the Secretary, except with the consent of the Executive Committee with which a copy of the proposed resolution has been lodged at least two days before the meeting.

VII. In addition to its two nominated representatives each District Association may send three of its members to attend the General Meeting of the Association who shall be allowed to address the meeting, with the permission of the Chairman, but shall not vote.

VIII. The Budget for the ensuing year shall be submitted to the General Committee before the 1st day of March and the Budget Meeting of the General Committee be held at any convenient date in the latter half March each year.

IX. The Accounts and Departmental Reports for each financial year shall be placed in the hands of all members at least one month before the 1st day of the Annual General Meeting.

THE U. P. A. S. I. BUYING AGENCY (U. B. A.)

Rules.

I. The Agency is and shall be a Department of the United Planters' Association of Southern India, and as such its affairs shall be administered by the General and Executive Committee of that body and the Secretary shall be the Secretary of the U. P. A. S. I.

II. As an Agency to obtain concessions as regards prices charged for goods supplied or services rendered to its members in return for prompt payment and to encourage combination in placing buying orders.

III. The following shall be entitled to membership on the payment of an annual subscription of Rs. 10 which may be collected by the Secretary forwarding the Membership Ticket by V. P. Post for Rs. 10-4-0:—

All Members and European employees of Members of the U. P. A. S. I., all Members of District Associations which are members of the U. P. A. S. I., and all European employees of the U. P. A. S. I.

IV. Membership shall be reckoned from the 1st of the month nearest to the date of receipt of application and all renewals shall date from the expiry of the previous ticket; in no case shall any allowance be made for absence on leave or any ticket be issued for a period of less than twelve months. Any member whose subscription is one year in arrears shall cease to be a member.

V. A member's subscription will cover purchases by himself or any actual dependent and all purchases for any estate of which he is Superintendent or owner (otherwise than as a Director or Shareholder only) if they subscribe to a District Association which is a member of the U. P. A. S. I.

VI. Members failing to settle their accounts with Firms in the list as provided for in Rule VII will be liable to have their names removed from the list of members and cease to be entitled to any of the benefits obtained by the Agency.

VII. The names of Firms, Companies and Persons who agree to grant special terms to Members of the Agency shall be entered in a list kept for that purpose which shall from time to time be circulated to all Members; and such firms, Companies and persons shall be furnished periodically with the Agency list of members.

VIII. The Agency will not be responsible in any way for the action of its members or of the firms, Companies, and others granting special terms.

IX. Any balance being a Profit at the end of a year shall be credited to the Southern India Planters' Benevolent Fund.

X. In no case shall the Secretary act as the agent of a member in any business connected with the Agency.

SOUTHERN INDIA PLANTERS' BENEVOLENT FUND.

*Registered under the Societies' Registration Act XXI of 1860
on the 22nd January 1924.*

Resolution of 1909.

PASSED ON AUGUST 13TH, 1909.

"That in view of the great benefits a Benevolent Fund would confer on the whole Planting Community, this Association recommends the starting of a Benevolent Fund for the Planters of Southern India on the lines drawn up by this meeting, and that the Secretaries of local District Associations be requested to collect subscriptions and forward such to the Secretary, U. P. A. S. I."

Memorandum of Association of the Southern India Planters' Benevolent Fund.

1. The name of the Association is the Southern India Planters' Benevolent Fund hereinafter referred to as "The Fund".
2. The objects for which the Association has been started are:—
 - (a) To give temporary assistance to members or to dependents of members who are in distress as the result of any good and sufficient cause.
 - (b) To give temporary assistance in special cases to dependents of European planters who are not members.
 - (c) Generally to make such use of the funds of the Association as will best effect the carrying out of the aforesaid objects or any of them, but in no case it is intended to provide an annual income.

**Rules and Regulations of the Southern India
Planters' Benevolent Fund.**

1. Subject to Rule 4 the following shall be entitled to membership:—
- (a) Any European Proprietor, Manager, Superintendent, Assistant or Recruiter of an Estate subscribing to a District Planters' Association which is a Member of the United Planters' Association of Southern India or who is himself a subscriber to such an Association or any European Employee of the United Planters' Association of Southern India, on payment of a minimum subscription of Rs. 10 per annum.
 - (b) Any Estate subscribing to a District Planters' Association which is a member of the United Planters' Association of Southern India or any member of the United Planters' Association of Southern India, on payment of a minimum subscription of Rs. 25 per annum.
2. A donor of Rs. 200 or any member subscribing Rs. 200 within a period not exceeding five years shall be considered a Life Member and be entitled to the benefits of the Fund without payment of further subscriptions.
3. A donor of Rs. 1,000 either in one or more instalments shall be welcomed as a patron and shall be considered a LIFE MEMBER and be entitled to all benefits of the Fund, and shall not be subject to the provisions of Rule 8.
4. All first subscriptions and applications for membership shall be sent to the Secretary on a form to be prescribed by the General Committee through the Honorary Secretaries of District Planters' Associations who shall certify that the applicant is eligible for membership under Rule 1, and the Executive Committee shall have the right of refusing any subscription and rejecting any application for membership.
5. Any member shall have the right of resigning his membership by giving notice in writing to the Secretary on or before the 31st March of any year provided that his subscription shall have been paid up to the 31st of March of that year.
6. All subscriptions shall be due on the 1st April each year and the Secretary or Honorary Secretaries of local Associations shall collect the same.
7. Any member whose subscription is more than one year in arrears shall only be entitled to such benefit as is allowed under Rule 22 which restriction shall remain in force for two years after payment of such arrears.

8. Any member except a donor of Rs. 1,000 who by reason of change in his profession or employment would not be eligible for membership under Rule 1 but wishes to retain his membership shall submit an application to remain a member to the Secretary for the decision of the Executive Committee whose decision shall be final.

9. All subscription of less than the minimum laid down in Rule 1 or received from persons not eligible for membership shall be treated as donations to the Fund.

10. The Fund shall be administered by a General Committee composed of the Members of the General Committee of the United Planters' Association of Southern India, whose Secretary shall also be the Secretary of the Fund.

11. The General Committee shall appoint an Executive Committee and may delegate to it any of the powers of the General Committee except those of making, altering or repealing by-laws.

12. The General Committee shall have power:—

(a) to arrange for meetings of the members of the Fund and for its own meetings and to regulate the procedure at all such meetings including the system of voting and to alter such procedure;

(b) to make, alter and repeal all such by-laws as they may deem necessary or convenient for the proper conduct and management of the Fund provided that no by-laws shall be inconsistent with or shall affect or repeal anything contained in the Memorandum of Association or the Rules of the Fund.

13. At any meeting of the General Committee 7 members shall form a quorum of whom no two shall be members of the same Planters' District Association.

14. The Chairman and the Secretary of the United Planters' Association of Southern India shall be the Trustees of the Fund for the time being.

15. All the property of the Fund moveable and immoveable shall vest in the Trustees and all documents relating to and affecting the property of the Fund shall be taken and stand in the name of the Fund; all documents relating to the properties of the Fund shall be executed by the Trustees for and on behalf of the Fund.

16. The Fund shall sue or be sued in the name of the Secretary.

17. All subscriptions and monies received shall be paid into a separate account with the Imperial Bank of India, and it shall require the joint signatures of the Trustees to draw any money from that account.

18. The monies of the Fund shall be invested in any investments allowed by the law for the time being in force for the investments of Trust Funds, or they may be placed in fixed deposit with the Imperial Bank of India.

19. All applications for assistance or relief shall be made on a form to be prescribed by the General Committee and forwarded to the Executive Committee through the Secretary. Applications for assistance for employees of the United Planters' Association of Southern India shall be made direct to the Executive Committee by the Chairman of the United Planters' Association of Southern India.

20. No grants involving periodical payments shall in the first instance or in case of subsequent renewal be made for longer period than six months. It shall, however, be competent for anyone in distress to apply for further relief, and the Executive Committee may render such assistance if the Funds are sufficient to meet the deserving cases of first applicants. In no case shall first class passages be granted if second class are available.

21. The Secretary of any District Association may, with the sanction of his Association or Committee, give temporary relief in case of emergency to the extent of Rs. 100 in any one case provided that the applicant for relief is a member of the Fund or a dependent of a member.

22. Dependents of European Planters other than members may receive assistance from the Fund only on the unanimous recommendation of the Committee or other administrative body of the Planters' District Association recommending such assistance.

23. These rules may be added to, repealed, or amended by resolution at any General Meeting of the Fund of which at least three months' notice shall have been given provided that no such resolution shall be passed to have been passed unless it be carried by a majority of at least five-fifths of the members voting thereon.

By-Laws.

Confirmed at the First Annual General Meeting held at Bangalore on the 23rd October 1924.

1. That the Annual General Meeting shall be held at the same place and at about the same time as the Annual General Meeting of the United Planters' Association of Southern India.

2. That at all General Meetings voting shall only be by Patrons and District Planters' Associations, members of the U. P. A. S. I. or their representatives and the Chairman of the U. P. A. S. I. Each Patron shall be entitled to five votes. The Chairman of the U. P. A. S. I. shall exercise the votes of the employees of the U. P. A. S. I. and such other members of the Funds as would otherwise be unrepresented. Representatives of District Associations and the Chairman of the U.P.A.S.I. shall be entitled to two votes for every Life Member represented and one vote for each ten rupees of the current year's subscription received before the date of the meeting from members represented by them.

PATRONS.

The Travancore Combined Planters' Association.
 The Mysore Planters' Association.
 The English and Scottish Joint Co-operative Wholesale Society Ltd.
 The Yendayar Estate.
 The Nenmeny and Redlynch Estates.
 Mr. J. J. Murphy.
 Mr. C. R. T. Congreve.
 Messrs. Volkart Bros.
 " Mangles Bros.
 " Stanmore (Anamallay) Estates Co., Ltd.
 " Nonsuch Tea Estates Ltd.
 " Sholayar Estate.

LIST OF LIFE MEMBERS.

(Patrons under the Old Rules.)

T. H. Allan & Co.	Karamalai Estate.
Anupura Coffee Works Co., Ltd.	Kerala Calicut Estates Ltd.
Aspinwall & Co., Ltd.	Kinalur Rubber Co., Ltd.
Sir Fairless Barber, Kt.	Korangamudi Estate.
S. Bayly.	Kuttiadi Rubber Co., Ltd.
Binny's Estates Ltd.	R. Lescher.
Lt.-Col. C. H. Brock, O.B.E., V.D.	R. W. Levett.
Burmah-Shell Oil Storage and	J. Mackie.
Distributing Co., Ltd.	C. A. Mackenzie.
Castlecroft Estate.	Malayalam Plantations, Ltd.
E. Sydenham Clarke.	B. A. Marden.
Colombo Commercial Co., Ltd.	C. L. McLean.
Consolidated Coffee Estates Ltd.	Mundakayam V. Rubber Co.
C. Courpalais.	Muskal Bora Estate.
Lt.-Col. W. L. Crawford, O.S.O.	L. Newcombe.
H. Cuthell.	K. E. Nicoll.
A. S. Dandison.	G. R. Oliver.
Darragh Smail & Co., Ltd.	Peirce, Leslie & Co., Ltd.
Eddivanna Rubber Co., Ltd.	Portland Estate.
D. Elkington.	Presidency Manure Works.
G. P. Farley.	Pudukad Rubber Co., Ltd.
E. T. C. Farr.	Puthuthottam Estate.
R. G. Foster.	J. H. Robinson.
R. Fowke.	R. Ross.
J. F. Fraser.	A. J. Saldanha & Sons.
T. P. Gauld.	Sheikulmudi Estate.
G. L. H. Gibson.	E. W. Simcock.
C. H. Godfrey.	Sir R. Stanes, Kt.
C. J. Hall.	Tea Estates India, Ltd.
E. Hall.	Thodapuzha Rubber Co., Ltd.
E. H. Halliley.	Travancore Rubber Co., Ltd.
J. G. Hamilton.	J. R. Vincent.
R. Harley.	J. S. B. Wallace.
Harrisons and Crosfield, Ltd.	H. J. Walmesley.
C. St. John Ives.	Wartyhully Estate.
J. H. Ireland Jones.	Capt. E. G. Windle.
Iyepadi Estate.	Woodlands and Olands Estates.
Jumboor Estate.	W. Woodman.
Kallyar Estate.	B. Wolde.

SOUTHERN INDIA PLANTERS'

Balance Sheet as at

LIABILITIES.	Rs.	A.	P.	Rs.	A.	P.
ACCUMULATED FUND ACCOUNT						
Balance as per last Balance Sheet	1,28,589	12	10			
Less: Excess of Expenditure over Income	947	13	10	1,27,641	15	0
AMOUNT DUE TO THE UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA				4,142	13	5
Total Rs.				1,31,784	12	5

Income and Expenditure Account for

EXPENDITURE.	Rs.	A.	P.	Rs.	A.	P.
To Assistance Granted						
1. Widow	900	0	0			
2. Widow	600	0	0			
3. Widow	1,200	8	5			
4. Widow	693	10	6			
5. Education of 2 Boys and 1 Girl	1,454	3	0			
6. Invalid Planter	75	0	0			
7. Destitute Planter	300	0	0			
8. Destitute Planter	900	0	0			
9. Invalid Widow	1,000	0	0			
10. Widow	450	0	0			
11. Destitute Planter	900	0	0			
12. Education of 1 Boy	664	15	0			
13. Passage Expenses	676	9	6			
14. Destitute Family	3,328	7	8			
15. Medical Expenses	350	0	0			
16. Destitute Planter	180	0	0			
17. Passage Expenses	602	0	0	14,275	6	1
„ Expenses.—						
Postages	59	3	6			
Bank Charges	7	8	0			
Printing and Stationery	19	2	0	85	13	6
Total Rs.				14,361	3	7

MADRAS, 11th August 1934.

BENEVOLENT FUND

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31st March, 1934.

ASSETS.	Rs.	A.	P.	Rs.	A.	P.
INVESTMENTS.—						
Rs. 18,500/- 3½% Loan ...	16,418	12	0			
„ 5,000/- 6½% 1935 Treasury Bonds ...	5,000	0	0			
„ 10,200/- 5½% 1938/40 Loan ...	10,064	0	0			
„ 89,600/- 5% 1940/43 Loan ...	89,884	2	0			
„ 5,000/- 5% 1945/55 Loan ...	5,000	0	0	1,26,366	14	0
INTEREST ACCRUED ON INVESTMENTS.—						
... ..				2,830	1	6
CASH AND OTHER BALANCES.						
With Imperial Bank of India	2,477	8	8			
Cash on hand	110	4	3	2,587	12	11
Total Rs. ...				1,31,784	12	5

the year ended 31st March, 1934.

INCOME.	Rs.	A.	P.
By Subscriptions and Donations	6,213	6	11
„ Interest on Government Loans	6,252	15	11
„ Amount transferred from Buying Agency ...	615	2	11
„ Appreciation on Government Loans	331	12	0
„ Excess of Expenditure over Income transferred to Accumulated Fund	947	13	10
Total Rs	14,361	3	7

Examined and found correct.

FRASER & ROSS,

Chartered Accountants.

Registered Accountants.

Auditors.

REPORT
OF THE
ELEVENTH ANNUAL GENERAL MEETING
OF THE
SOUTHERN INDIA PLANTERS' BENEVOLENT FUND
(INCORPORATED),

The Eleventh Annual General Meeting of the Southern India Planters' Benevolent Fund (Incorporated) opened at "Glenview", Coonoor, on Tuesday, the 11th September, 1934, commencing at 12 noon.

The following were present:—

Mr. R. Fowke	..	<i>Chairman.</i>
Mr. W. A. J. Milner	..	<i>Ex Chairman.</i>
Mr. J. S. B. Wallace	}	<i>Active Members of the</i>
Mr. L. Garrett	}	
Mr. Eric Hall	}	<i>Committee</i>
Mr. H. S. Cameron	..	<i>Member-in-Waiting.</i>
Lt-Col. C. H. Brock	..	<i>Secretary.</i>

and the following representatives of Members:—

Anamallais	..	Mr. G. B. Reade.
Central Travancore	..	Messrs. C. J. Madden and W. F. Inman.
Coorg	..	„ A. E. J. Nicolls and J. H. Sprott.
Kanan Devans	..	„ E. H. Francis and A. S. Robertson.
Mundakayam	..	Mr. W. A. J. Milner.
Mysore	..	Mr. E. W. Fowke.
Nelliampathy	..	Mr. P. W. Davis.
Nilgiris	..	Messrs. R. C. Bulteel and C. L. Greig.
Niligiri-Wynaad	..	„ R. C. Alderson and R. M. Greig.
Shevaroy	..	„ P. V. Briscoe and W. A. Rahm.
South Travancore	..	Mr. W. Gillespie.
West Coast	..	Mr. H. J. Walmesley.
Wynaad	..	Messrs. T. E. Howe and I. W. Finlayson.

The Secretary read the notice calling the meeting, and mentioned that the Wynaad Planters' Association's resolution, notified in the preliminary notice dated 11th June, 1934, had since been withdrawn, but the Coorg and Anamallai Planters' Associations' resolutions still stand.

The Chairman:—You have first to confirm the proceedings of the meeting held on 16th August, 1933, published in full in the Book of Proceedings. Have I your permission to sign the minute book as a correct record?

Permission was granted.

The Secretary then read the Report on the working of the Fund for the year ending 31st March, 1934.

SECRETARY'S REPORT

FOR THE YEAR ENDING 31ST MARCH, 1934.

Membership:—The number of planters subscribing to the Fund again showed a decrease, as compared with the previous year, as only 257 planters subscribed as against 271 in the last year. There was also a decrease in the number of estates subscribing by 4. The total amount received from planters was Rs. 2,937 and from Estates Rs. 2,530 as against Rs. 3,416-12-0 and Rs. 2,415 respectively in the previous year.

Donations:—During the year, 5 Associations and 12 Firms and individuals gave donations amounting to Rs. 746-6-11, as against Rs. 760 received in the past year.

Income:—The total receipts from subscriptions and donations amounted to Rs. 6,213-6-11. Interest on Investments realized Rs. 6,252-15-11 and the balance transferred from the Buying Agency was Rs. 615-2-11. The appreciation in value of our Investments in Government Bonds valued by the Auditors as on 31st March 1934, shows a book income of Rs. 331-12-0.

Expenditure:—The assistance granted this year amounted to Rs. 14,275-6-1 which was more than last year by Rs. 4,325-9-5. The grants included the maintenance and education of 4 children, allowances to 6 widows, 6 planters and 2 families. The running expenses amounted to Rs. 85-13-6 bringing the total expenditure to Rs. 14,361-3-7, leaving an excess of expenditure over income of Rs. 947-13-10.

Investments:—The total of the Fund as at 31st March 1934 was Rs. 1,27,641-15-0 and of this amount Rs. 1,26,366-14-0 is invested in Government Bonds.

The Chairman:—You have all heard the Secretary's Report. I shall be glad to know if you have any criticisms to make or questions to ask before I ask you to adopt the Report. As no one has anything to say, I propose the following resolution:—

"That the Secretary's Report be adopted."

The resolution was carried.

EXECUTIVE COMMITTEE.

The Chairman explained that under the rules of the Fund, it was necessary to appoint an Executive Committee, and proposed:—

"That the Executive Committee of the U.P.A.S.I. be the Executive Committee of the Southern India Planters' Benevolent Fund, with all powers of the General Committee except those of making, altering or repealing bye-laws".

The resolution was carried.

ACCOUNTS.

The Chairman:—The Accounts have been printed and circulated. You have all copies of them. Has any one any questions to ask or criticisms to make?

Mr. Howe:—What is the amount of Rs. 4,142-13-5 due to the U.P.A.S.I.?

The Chairman:—That merely represents the current account between the U.P.A.S.I. and the Benevolent Fund.

Mr. Fouke:—The amount of Rs. 602 under "Passage Expenses" seems to be high. Actually a tourist passage does not amount to so much.

The Chairman:—This entry of "passage money" does not represent only the passage itself. It also represents expenses on the voyage and living expenses after people get home for a short time. If no other delegate has any questions to ask, I propose from the Chair:—

"That the Accounts for 1933-34 be adopted".

The resolution was carried.

RULES.

The Chairman:—The Coorg Planters' Association have tabled the following resolution:—

"That the following be added to Rule No. 22:—

European Planters other than members may receive assistance from the Fund only on recommendation of the Committee of the Planters' District Association recommending such assistance combined with the recommendation of either one Patron or not less than six Life Members."

I am afraid I must rule this resolution out of order. You cannot alter Rule No. 22 alone, as, if you alter it, the Memorandum of Association, No. 2 (b), will be repugnant to that Rule. Therefore, on this ground, I must rule the resolution out of order. I would like, however, to mention to the Coorg Planters' Association that the only way to get out of this difficulty is to alter the Memorandum of Association—Article 2(b) as well, but they will have to give the required notice for doing so.

Mr. Nicolls:—I would ask permission to withdraw the resolution.

The meeting gave permission to withdraw the resolution.

The Chairman:—The next resolution tabled is that of the Anamallai Planters' Association. This resolution is merely a recommendation. It does not alter any existing Rules or Articles.

Mr. Reade:—Our resolution reads as follows:—

"This Association recommends that grants to non-members should be eliminated as from 1st April 1934, but the Executive Committee should be authorised to repatriate non-subscribers when necessary; further that benefits now being made to non-subscribers should be continued."

The reason why my Association is moving this resolution is that, in their opinion, there should be no such thing as a non-subscriber amongst planters. The subscription is a very small one, less than Rs. 1 per month, which makes membership within reach of every one. My Association has had a 100 per cent. membership to this Fund and if one district can do it, so, Gentlemen, can others. With all working planters as members it is obvious that the Fund will be in a much stronger financial position and, in consequence, be able to do more to alleviate distress than it can now.

Mr. Nicolls:—I second the resolution.

Mr. Howe:—If the Executive Committee carried out this suggestion by repatriating a non-subscriber, are they not acting contrary to the Memorandum of Association?

The Chairman:—Certainly, Mr. Howe, they would be going beyond the provisions of the Memorandum of Association by acting on this resolution if passed. It is merely a recommendation. You will have then to pass, at a further meeting, a resolution altering the Memorandum. But this resolution, as it stands, is merely a recommendation and cannot be acted upon by the Executive Committee.

Mr. Howe:—Even if this resolution is passed, it does not get you any farther!

The Chairman:—The resolution, I think, is intended, Gentlemen, merely to get the sense of the meeting; I think that must be the proposer's idea. If the resolution is passed, then the Executive Committee would take necessary steps to obtain legal advice and have the necessary notice to amend the Memorandum issued to all members of the Fund. The resolution, as it stands, can have no effect at the moment at all.

Mr. Fowke:—My Association do not favour the resolution. There are many destitute planters who were planting before the Fund was started.

Mr. Davis:—My Association also takes the same view.

Mr. Walmsley:—I agree with Mr. Fowke.

Mr. Madden:—My Association has instructed me to oppose this resolution. We consider that the Executive Committee may be left to administer the Fund as they have done in the past.

Mr. Bulteel:—We are in favour of this resolution and, particularly, are in agreement with the opinion of the Anamallais that there ought to be no non-subscribers to the Fund.

Mr. Robertson:—I agree with Mr. Fowke. The Benevolent Fund should be in the nature of charity and not insurance.

Mr. Gillespie:—I am not in favour of the resolution.

Mr. Briscoe:—I am in support of the resolution.

The Chairman:—I will now put the resolution to the vote. It is proposed by Mr. Reade and seconded by Mr. Nicolls.

The resolution was LOST.

Mr. Inman:—My Association has asked that in all cases where application is made for relief, it should be referred back to the district concerned. We have thought it to be obviously in the best interests

of the Fund, because it is possible that mistakes might arise, and the district from which the application emanates will know more about the case than the Executive Committee.

The Chairman:—Mr. Inman, the Executive Committee will bear the point in mind. It usually is done; there may have been a few cases where it has not been done.

Mr. Howe:—In view of the opinions expressed this morning, may I take this opportunity of saying a few words regarding this question of rendering assistance to those of our community who are non-subscribers to the Fund? Before going any further, I wish it to be distinctly understood that I am speaking purely as an individual member of the Fund. At the last Annual General Meeting of the Fund, a method was adopted, and approved of, whereby a non-subscribing applicant for assistance could be made a member of the Fund on payment of Rs. 10. After a very careful study of the Memorandum of Association, and Rules and Regulations of this Fund, I contend that this method is incorrect, and cannot be reconciled with the existing Rules and Regulations. The reason for my contention is contained in Rule No. 1(a) which reads:—

“ the following shall be entitled to membership.
any European Proprietor, Manager, Superintendent, Assistant,
etc., etc. ”

Presumably, a planter who is in employment would not apply to the Fund for help. A member who has fallen on evil days is entitled to receive help. Now take the case of the non-subscribing applicant for assistance, whom it is desired to admit to membership. I maintain that you cannot admit this applicant as a member because he is not *a Proprietor, a Manager, a Superintendent, an Assistant*. To my mind, the only method of implementing what we all agreed upon last year, is by expressing our intention in black and white, and which can only be done by an alteration to the existing Memorandum of Association. As a natural corollary, it would follow that minor alterations would become necessary to legislate for the new circumstances then obtaining. My object in bringing this matter up to-day is that it may perhaps stimulate discussion, and give some indication as to whether the general opinion is that we should formally express our intentions of helping non-members. Of course it is impossible, I know, to propose any resolution on this subject to-day, but expressions of opinion will indicate whether this matter should be pursued any further.

Mr. Fowke:—That we intend helping non-members ought to be in the Rules.

Mr. Nicolls:—Does not Rule No. 22 cover what Mr. Howe is getting at?

The Chairman:—It only covers the dependents of non-subscribers. Well, you have all heard what Mr. Howe has said, and I would suggest this is an excellent opportunity for those interested to discuss the question of revising the Articles of Association during the course of this week. Various District Associations are present, and they can get together and see whether they can come to some understanding as to what is in the best interests of the Fund. After that is done, we can have a resolution passed at an Extra-Ordinary General Meeting. I do not think you need wait till next year.

Mr. Howe:—Just one more word. I should like to add that this proposal is not brought up in a spirit of dissatisfaction with the way in which the Fund is administered at present. The only thing that I wish done is, as I said before, to put in black and white that we do wish to help non-members in cases of difficulty and distress.

Mr. Reade:—Does Mr. Howe refer to the planting community or to anybody?

The Chairman:—He refers to members of the planting community.

Mr. Garrett:—My own opinion is that the present Rules have been current for years, and I do not think anyone has got any complaints to make against them or against the administration. If you impose faith in your Executive Committee, it seems we may just as well let them carry on. If it is possible to meet Mr. Howe's point by one single resolution, I shall be in favour of it, but, as it stands, it means altering every item in the Articles of Association and that will be most expensive and cumbersome.

Mr. Howe:—I do not think it entails alteration of the whole Memorandum; it merely necessitates introducing a slight alteration in item No. 2(a) and I think you need merely delete Rule No. 22. I presume I am correct in saying, from information that I have received, that the cost of altering the Memorandum of Association would be about Rs. 400 to Rs. 500, and this is not very much to spend to administer a Fund of Rs. 1,28,000.

Mr. Milner:—Would it not meet Mr. Howe's case if the Memorandum of Association—Article 2(b) is altered to read:—

"To give temporary assistance in special cases to European Planters and their dependents who are not members."

If the alteration does not cost more than Rs. 500, I suggest that it be undertaken.

The Chairman:—You will have to alter Rule No. 22 as well.

Mr. Davis:—My Association, while being in favour of helping non-members, are not in favour of an expenditure of Rs. 500.

The Chairman:—If no one has anything more to say, I now declare the meeting closed.

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